1983
BMW 528e/533i
Electrical Troubleshooting Manual

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BMW of North America, Inc.
Montvale, New Jersey

FOREWORD

In the interests of continuing technical development work we reserve the right to modify designs and equipment.

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1983
BMW 528e / 533i
Electrical
Troubleshooting
Manual

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The purpose of this manual is to show electrical schematics in a manner that makes electrical troubleshooting easier. Electrical components which work together are shown together on one schematic. The Wiper-Washer schematic, for example, shows all of the electrical components in one diagram. At the top of the page is the fuse (positive) that powers the circuit. The flow of current is shown through all wires, connectors, switches, and motors to ground (negative) at the bottom of the page.

Within the schematic, all switches and sensors are shown "at rest," as though the Ignition Switch were off. For identification, component names are underlined and placed next to or above each component. Notes are included, describing how switches and other components work.

The power distribution schematic shows the current feed through all the connections from the Battery and Alternator to each fuse and the Ignition and Light Switches. If the Power Distribution schematic is combined with any other circuit schematic, a complete picture is made of how that circuit works. The Ground Distribution schematics show how several circuits are connected to common grounds.

All wiring between components is shown exactly as it exists in the vehicle; however, the wiring is not drawn to scale. To aid in understanding electrical operation, wiring inside complicated components has been simplified. The "Solid State" label designates electronic components.

WIRE SIZE CONVERSION CHART

METRIC (CROSSECTIONAL AREA IN MM^2)	AWG (AMERICAN WIRE GAUGE)
.5	20
.75	18
1	16
1.5	14
2	14
2.5	12
4	10
6	8
8	8
16	4
20	4
25	2
32	2

WIRE INSULATION

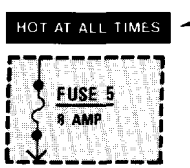
ABBREVIATIONS	COLOR
BK	BLACK
BR	BROWN
RD	RED
YL	YELLOW
GN	GREEN
BU	BLUE
VI	VIOLET
GY	GRAY
WT	WHITE
PK	PINK

4 SYMBOLS

ENTIRE COMPONENT SHOWN

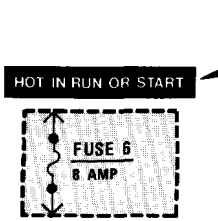
COMPONENT CASE IS DIRECTLY ATTACHED TO METAL PART OF CAR (GROUNDED)

PART OF A COMPONENT SHOWN



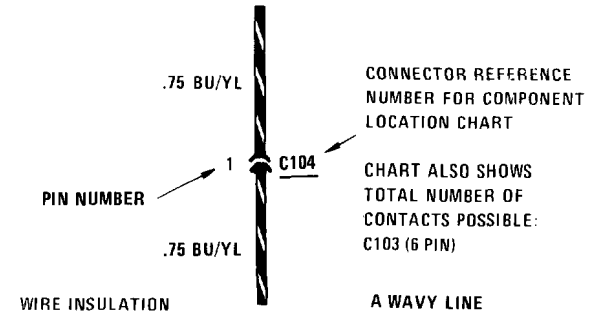
INDICATES THAT FUSE 5 IS ALWAYS SUPPLIED WITH POWER

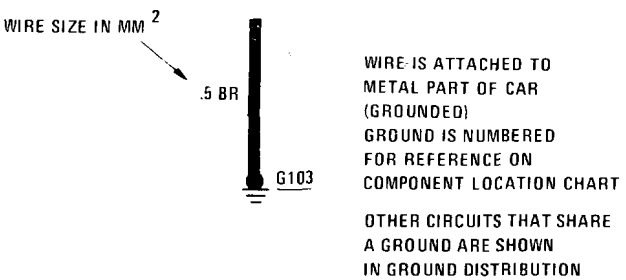
COMPONENT WITH SCREW TERMINALS

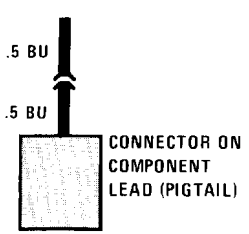


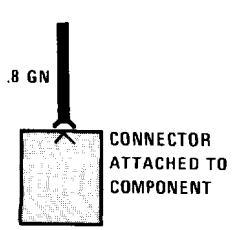
INDICATES THAT FUSE 6 IS SUPPLIED WITH POWER WITH THE IGNITION SWITCH IN THE RUN OR START POSITIONS

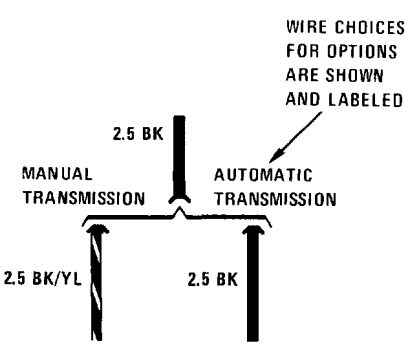
SOLID STATE (INCLUDES ONLY ELECTRONIC PARTS)

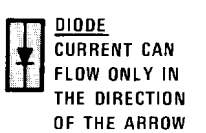


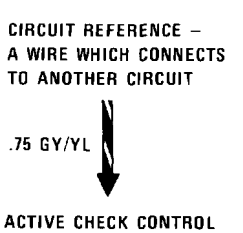




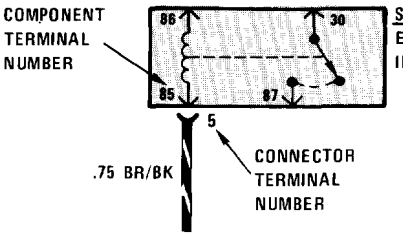


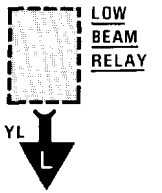




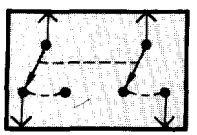


ONE POLE,
TWO POSITION
SWITCH





TO POWER
DISTRIBUTION
BOX, PAGE 1

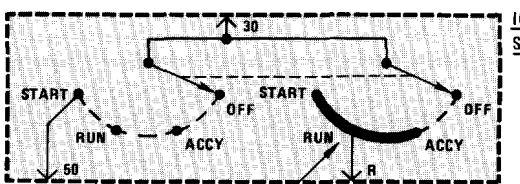


SWITCHES THAT
MOVE TOGETHER

DASHED LINE SHOWS
A MECHANICAL
CONNECTION
BETWEEN SWITCHES

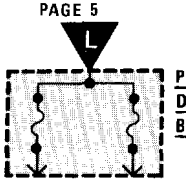
CURRENT PATH
IS CONTINUED
AS LABELED.
THE ARROW SHOWS
DIRECTION OF CURRENT
FLOW AND IS REPEATED
WHERE CURRENT
PATH CONTINUES.

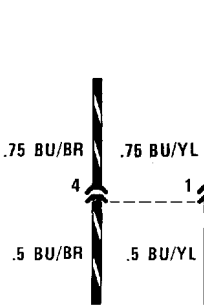
TWO POLE, FOUR
POSITION SWITCH



"R" IS ENERGIZED
IN ACCY, RUN OR START

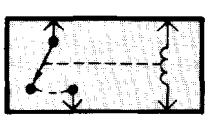
FROM LOW
BEAM RELAY,
PAGE 5





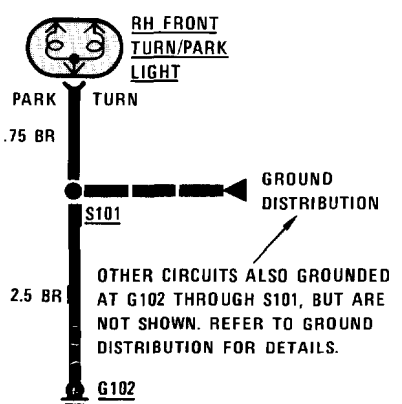
TWO CONNECTIONS
(PINS) IN THE SAME
CONNECTOR

DASHED LINE SHOWS
PARTS OF THE
SAME CONNECTOR



RELAY SHOWN
WITH NO
CURRENT
FLOWING
THROUGH
COIL

WHEN COIL IS
ENERGIZED, SWITCH
IS PULLED CLOSED



LIGHT
EMITTING
DIODE

TROUBLESHOOTING PROCEDURE

1. **Verify the Problem**

   Operate the problem circuit to check the accuracy of the complaint. Note the symptoms of the inoperative circuit.

2. **Analyze the Problem**

   Refer to the schematic of the problem circuit in the ETM. Determine how the circuit is supposed to work by tracing the current path(s) from the power feed through the circuit components to ground. Then based on the symptoms you noted in step 1 and your understanding of circuit operation, identify one or more possible causes of the problem.

3. ***Isolate the Problem***

   Make circuit tests to prove or disprove the preliminary diagnosis made in step 2. Keep in mind that a logical simple procedure is the key to efficient troubleshooting. Test for the most likely cause of failure first. Try to make tests at points which are easily accessible.

4. **Repair the Problem**

   Once the specific problem is identified, make the repair using the proper tools and safe procedures.

5. **Check the Problem**

   Operate the circuit to check for satisfactory circuit operation. Good repair practice calls for rechecking all circuits you have worked on.

TROUBLESHOOTING TOOLS

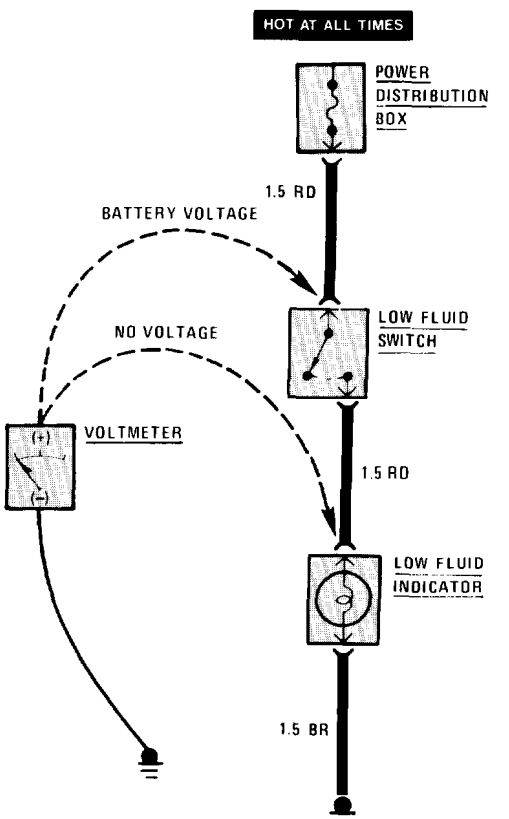
Isolating the problem (Step 3 of TROUBLESHOOTING PROCEDURES) requires the use of a **voltmeter** and/or **ohmmeter**. A voltmeter measures voltage at selected points in a circuit. An ohmmeter measures a circuit's resistance to current flow. It has an internal battery that provides current to the circuit under test. Disconnect the car battery when using an ohmmeter because the battery voltage will cause the ohmmeter to give false readings. Also, do not use an ohmmeter on solid-state components. The voltage that the ohmmeter applies to the circuit could damage these components.

TROUBLESHOOTING TESTS

Voltage Test

This test measures voltage in a circuit. By taking measurements at several points (terminals or connectors) along the circuit, you can isolate the problem.

To take a voltage measurement, connect the negative lead of the voltmeter to the battery's negative terminal or other known good ground. Then connect the positive lead of the voltmeter to the point you want to test. The voltmeter will measure the voltage present at that point in the circuit.

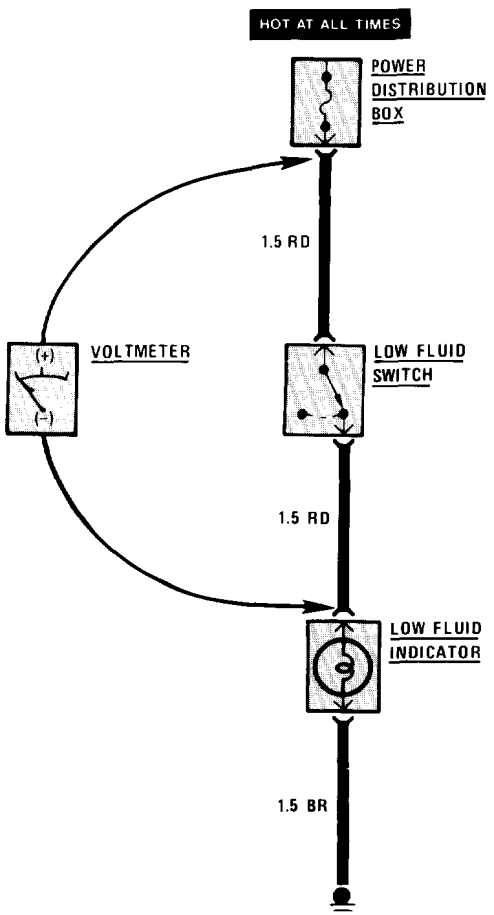


Voltage Test

Voltage Drop Test

Wires, connectors, and switches are designed to conduct current with a minimum loss of voltage. A voltage drop of more than one volt indicates a problem.

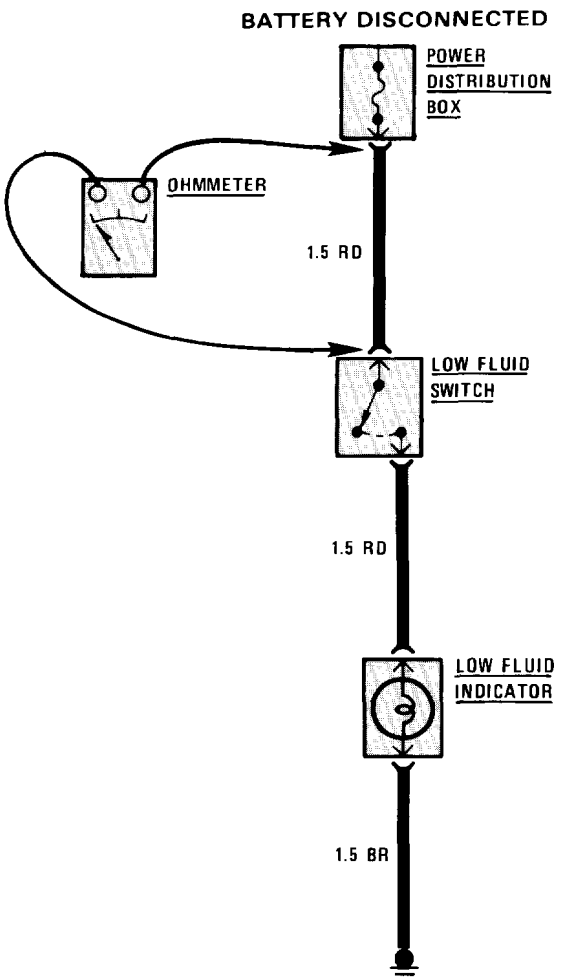
To test for voltage drop, connect the voltmeter leads to connectors at either end of the circuit's suspected problem area. The positive lead should be connected to the connector closest to the power source. The voltmeter will show the voltage drop between these two points.



Voltage Drop Test

Continuity Test

To perform a continuity test, first disconnect the car battery. Then adjust the ohmmeter to read zero while holding the leads together. Connect the ohmmeter leads to connector or terminals at either end of the circuit's suspected problem area. The ohmmeter will show the resistance across that part of the circuit.

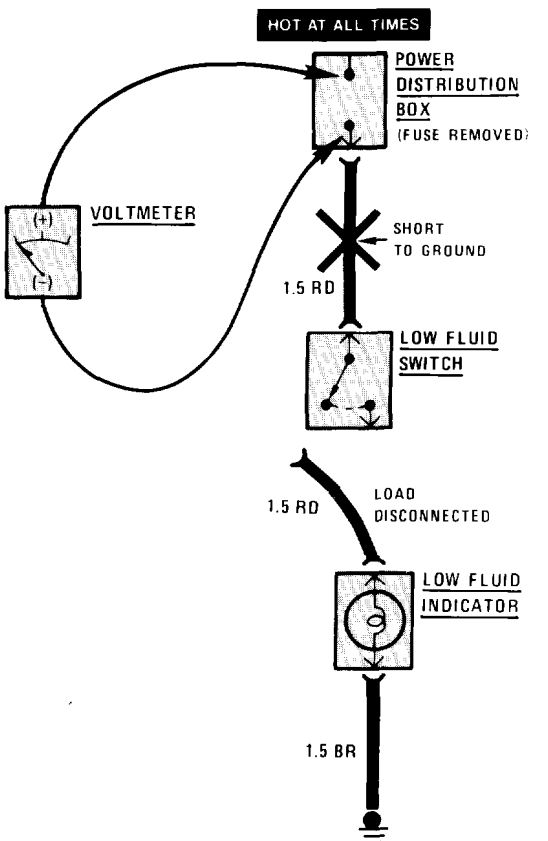


Continuity Test

Short Test Using Voltmeter

Remove the blown fuse and disconnect the load. Connect the voltmeter leads to the fuse terminals. The positive lead should be connected to the terminal closest to the power source.

Starting near the POWER DISTRIBUTION BOX, move the wire harness back and forth and watch the voltmeter reading. If the voltmeter registers a reading, there is a short to ground in the wiring. Somewhere in the area of the harness being moved, the wire insulation is worn away and the circuit is grounding.

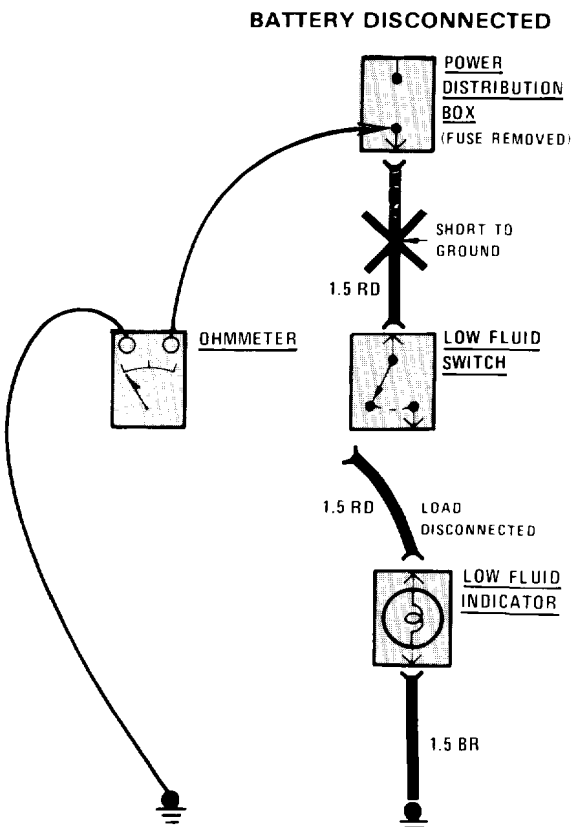


Short Test Using Voltmeter

Short Test Using Ohmmeter

Disconnect the battery. Adjust the ohmmeter to read zero while holding the leads together. Remove the blown fuse and disconnect the load. Connect one lead of the ohmmeter to the fuse terminal that is closest to the load. Connect the other lead to a known good ground.

Starting near the POWER DISTRIBUTION BOX, move the wire harness back and forth and watch the ohmmeter reading. Low or no resistance indicates a short to ground in the wiring. Infinitely high resistance indicates no short.



Short Test Using Ohmmeter

NOTE
On some cars, the position of the side mounted relays may be interchanged on their respective sides. Check relay wire colors for positive identification.

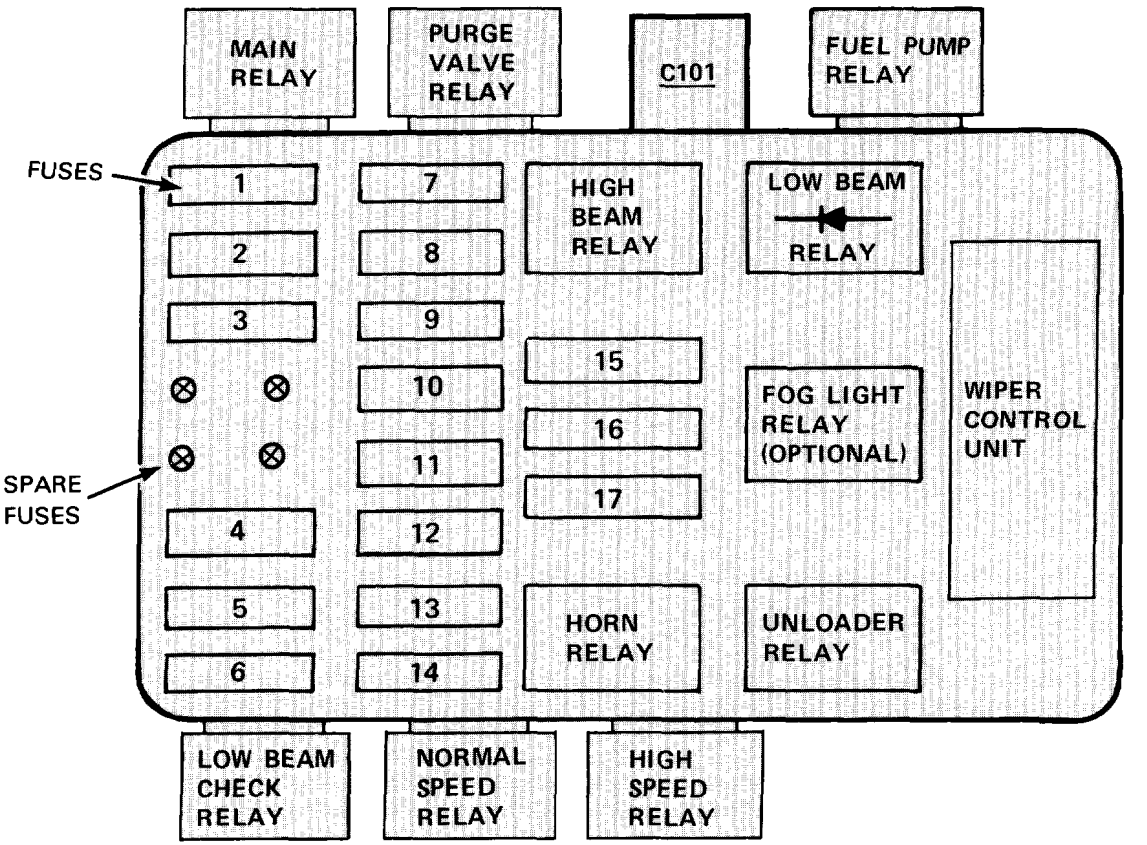
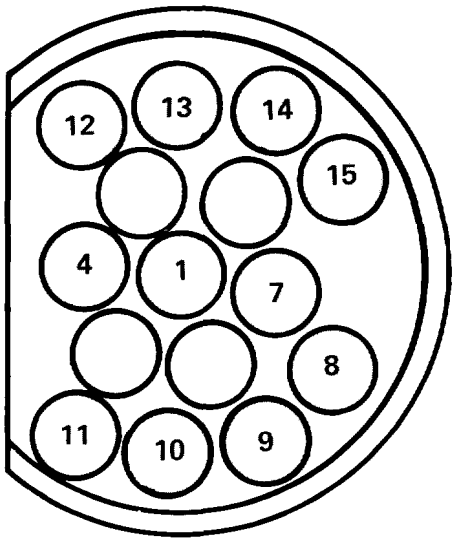


Figure 1 - Top Of Left Front Wheel Well

FUSE NO.	SIZE/ COLOR	CIRCUIT NAME
1	16A (RD)	Fuel Delivery/Evaporative Control.
2	8A (WT)	Active Check Control (also fuse 5, 6, 9, 10, 11, 12); Headlights (RH Low Beam).
3	8A (WT)	Active Check Control (also fuses 5, 6, 9, 10, 11, 12); Healdights (LH Low Beam).
4	25 (BU)	Cigar Lighter. Active Check Control (also fuses 2, 3, 6, 9, 10, 11, 12); Central Locking; Gauges (also fuse 6); Glove Box Light; Heated Door Lock;
5	8A (WT)	Ignition Key Warning/Seatbelt Warning (also fuse 6); Interior Lights (also fuse 6); Lights: Turn/Hazard Warning (also fuse 11); Lights: Trunk; Auto-Charging Flashlight; Auto-Charging Flashlight; On-Board Computer (also fuses 6, 12); Radio/Power Antenna (also fuses 4, 12); Service Interval Indicator (also fuse 6).
		Active Check Control (also fuses 2, 3, 5, 9, 10, 11, 12); Back Up Lights/Transmission Range Lights; Brake Lining Warning; Cruise Control (also fuse 12); Dash Lights (also fuse 9, 14); Fog Lights (also fuses 15, 16); Gauges (also fuse 5); Heater/Air Conditioning (also fuse 14);
6	8A (WT)	Idle Speed Control; Ignition; Interior Lights (also fuse 5); On-Board Computer (also fuses 5, 12); Power Mirrors; Poewr Windows (also Power Window Circuit Breaker); Seatbelt Warning (also fuse 5); Service Interval Indicator (also fuse 5); Speedometer; Warning Indicators (also fuse 15).
7	8A (WT)	Headlights (RH High Beams).

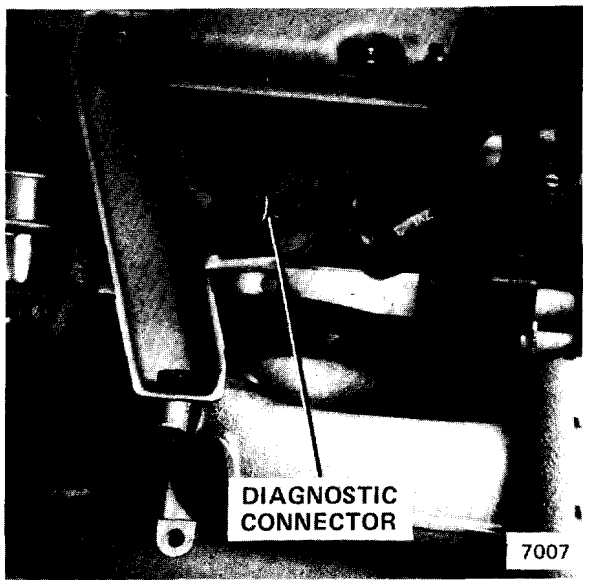
FUSE NO.	SIZE/ COLOR	CIRCUIT NAME
8	8A (WT)	Headlights (LH Low Beams).
9	8A (WT)	Active Check Control (also fuses 2, 3, 5, 6, 10, 11, 12); Dash Lights (also fuses 6, 14); Lights: Front Park/Front Marker/Tail; Lights: Rear Marker/License.
10	8A (WT)	Active Check Control (also fuse 2, 3, 5, 6, 9, 11, 12); Lights: Front Park/Front Marker/Tail.
11	16A (RD)	Active Check Control (also fuse 2, 3, 5, 6, 9, 11, 12); Lights: Turn/Hazard Warning (also fuse 5); Wiper/Washer.
12	8A (WT)	Active Check Control (also fuses 2, 3, 5, 6, 9, 10, 11); Cruise Control; Radio (also fuses 4, 5); Stoplights; On-Board Computer (also fuses 5, 6); Power Antenna (also fuses 4, 5).
13	25A (BU)	Rear Defogger; Sunroof.
14	25A (BU)	Auxiliary Fan (also fuse 17); Dash Lights (also fuses 6, 9); Heater/Air Conditioning (also fuse 6).
15	8A (WT)	Fog Lights (RH).
16	8A (WT)	Fog Lights (LH).
17	25A (BU)	Auxiliary Fan (also fuse 14).
Power Window Circuit Breaker	25A	Power Windows (also fuse 6).

104 DIAGNOSTIC CONNECTOR



DIAGNOSTIC CONNECTOR FACE

528e - ASMOUNTED ON MANIFOLD

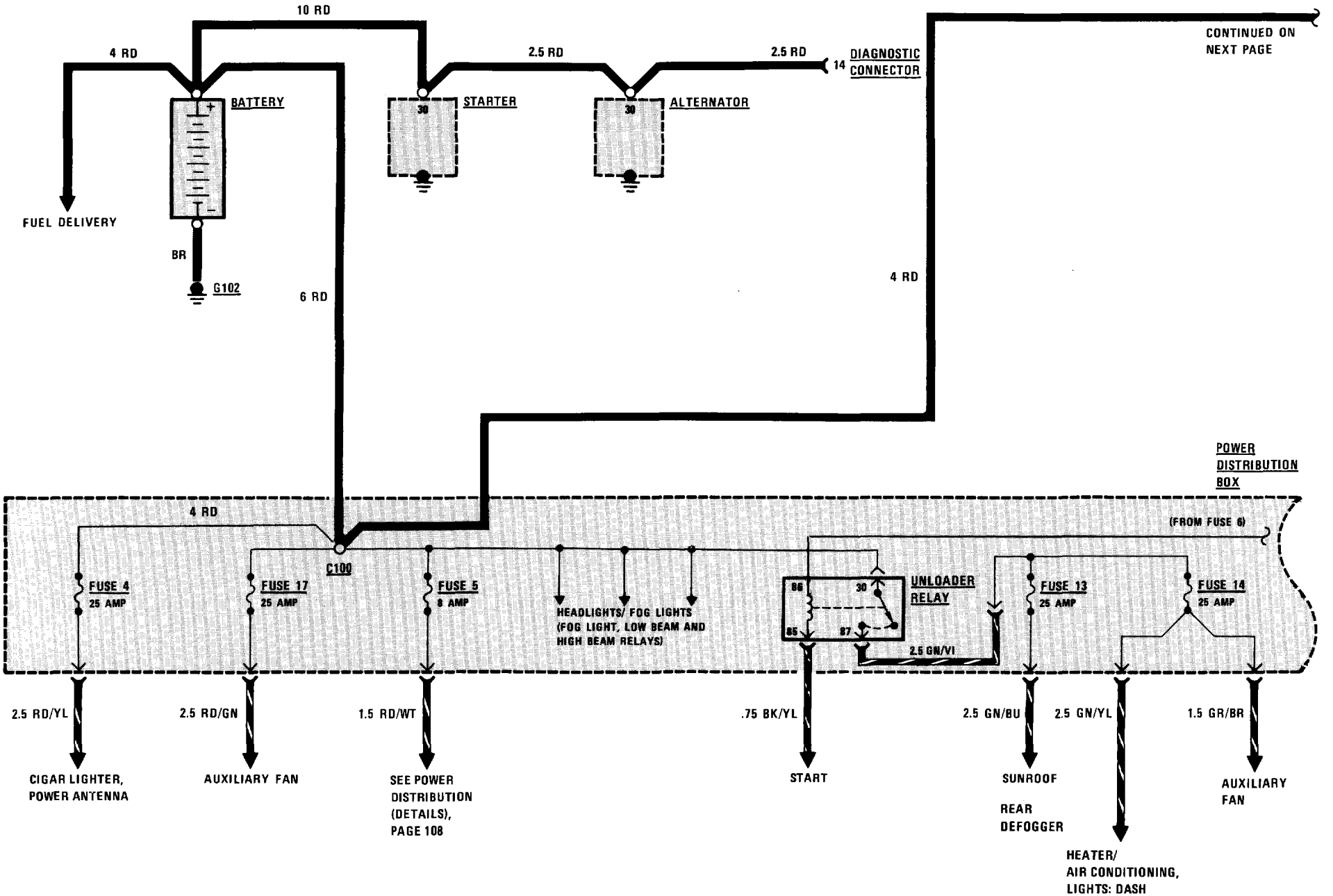


533i - TOP, FRONT OF ENGINE

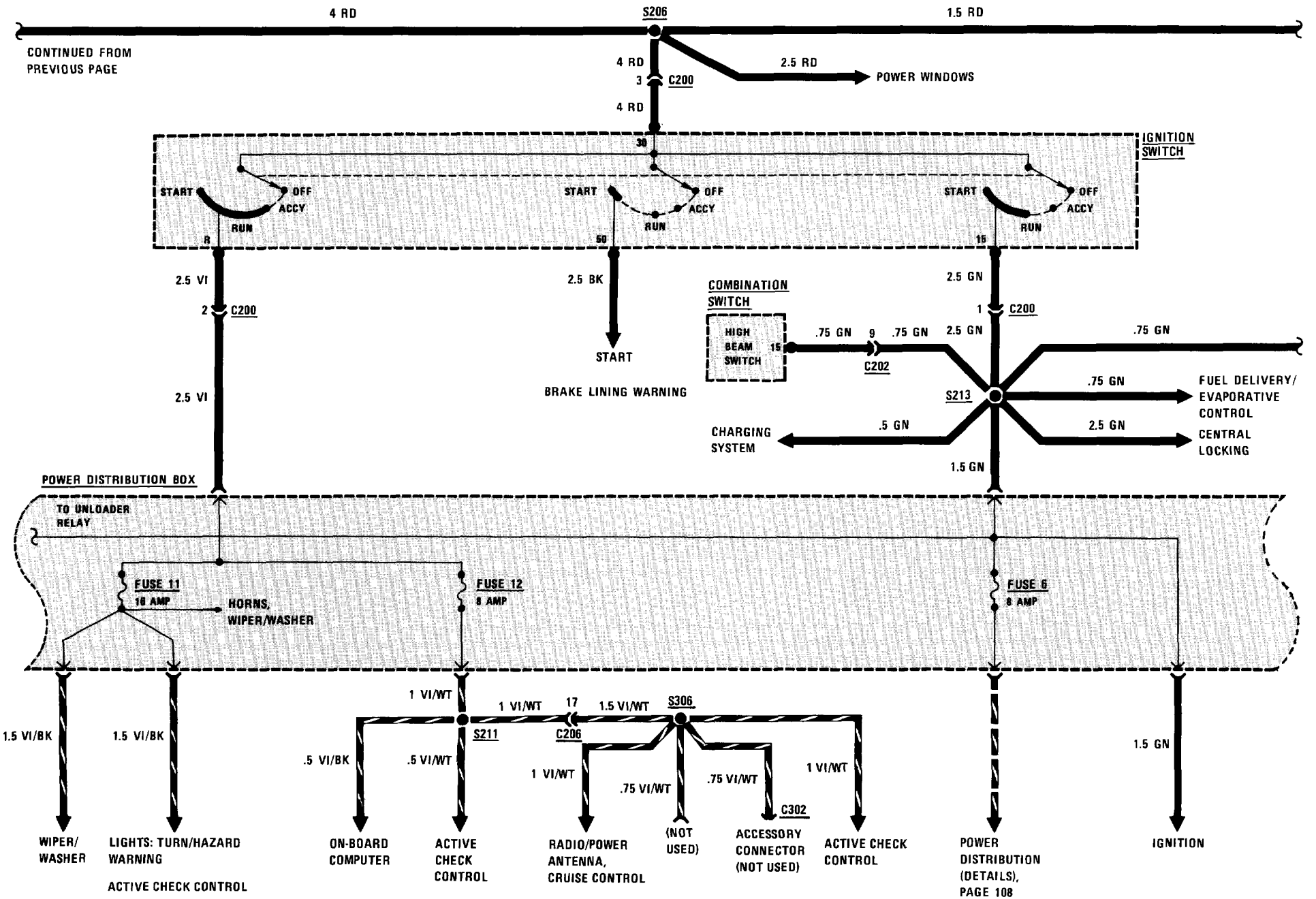
Figure 1 - Top Of Engine

PIN	WIRE SIZE	WIRE COLOR	CIRCUIT AND COMPONENT CONNECTED
1	1.5	BR	Ground Distribution, G103
4	.5	BR/VI	Gauges/Warning Indicators, Coolant Temperature Sender.
7	.5	WT/BU	Service Interval Indicator, Service Interval Processor (Reset).
8	.5	YL	Ignition, TDC Sensor.
9		SHIELD	Ignition, TDC Sensor.
10	.5	BK	Ignition, TDC Sensor.
11	2.5	BK/YL	Start, Start Signal.
12	.75	BU	Charge System, Alternator..
13	1	GN	Ignition, Ignition Coil.
14	2.5	RD	Charge System, Alternator.
15	1.5	GN/YL	Idle Speed Control, Idle Speed Control Unit.

(For Component Locations See Page 210)



(For Component Locations See Page 210)



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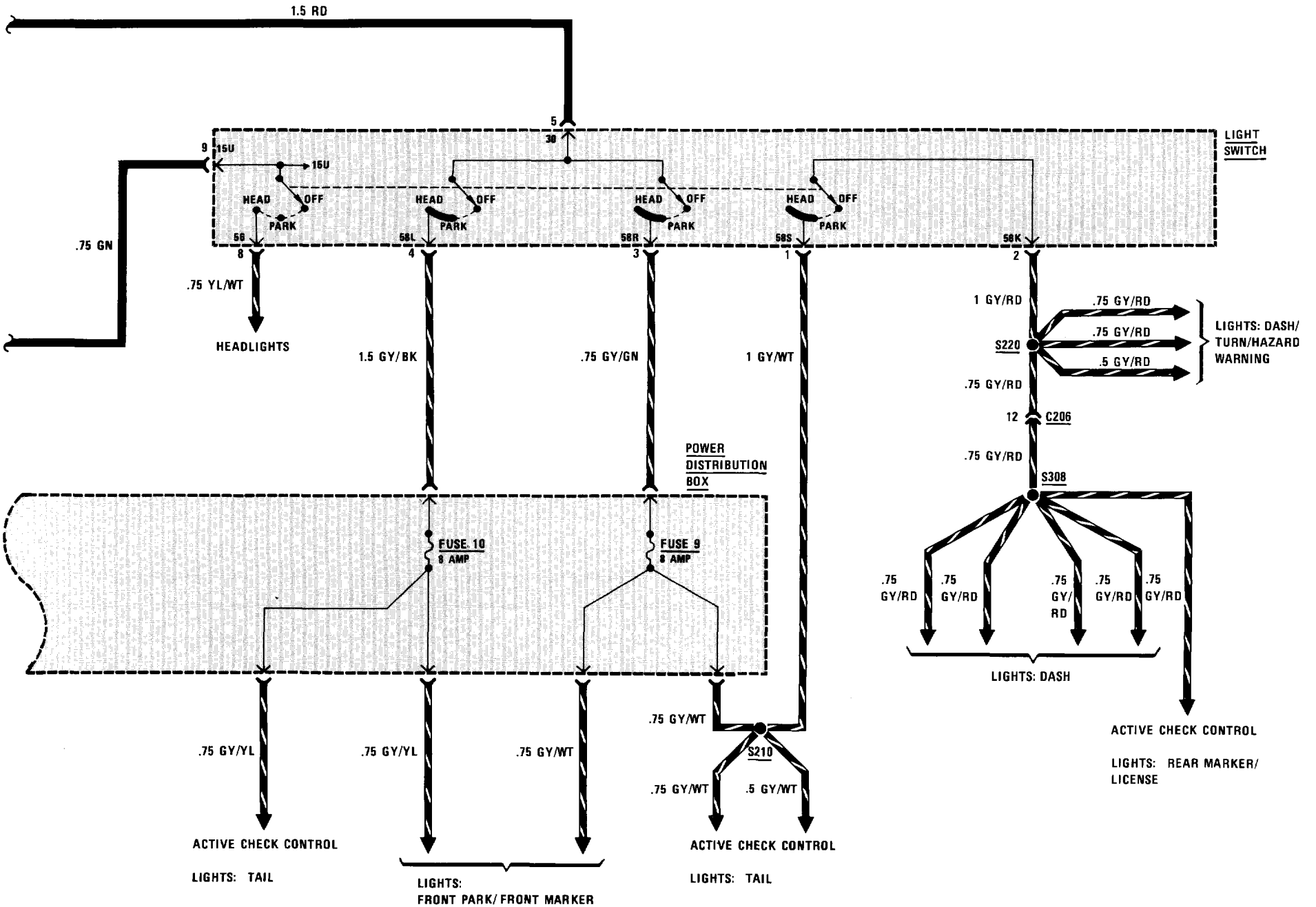

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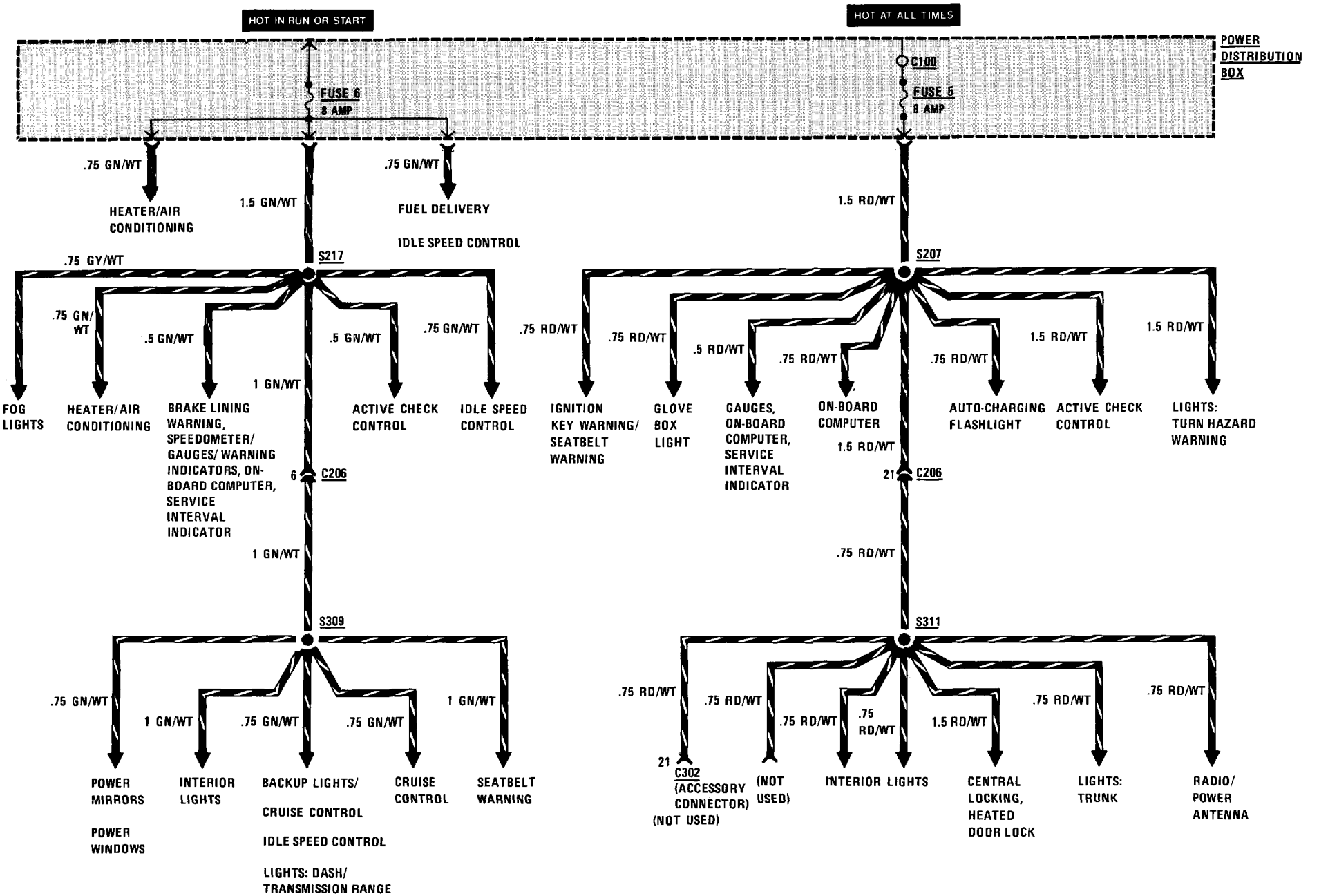

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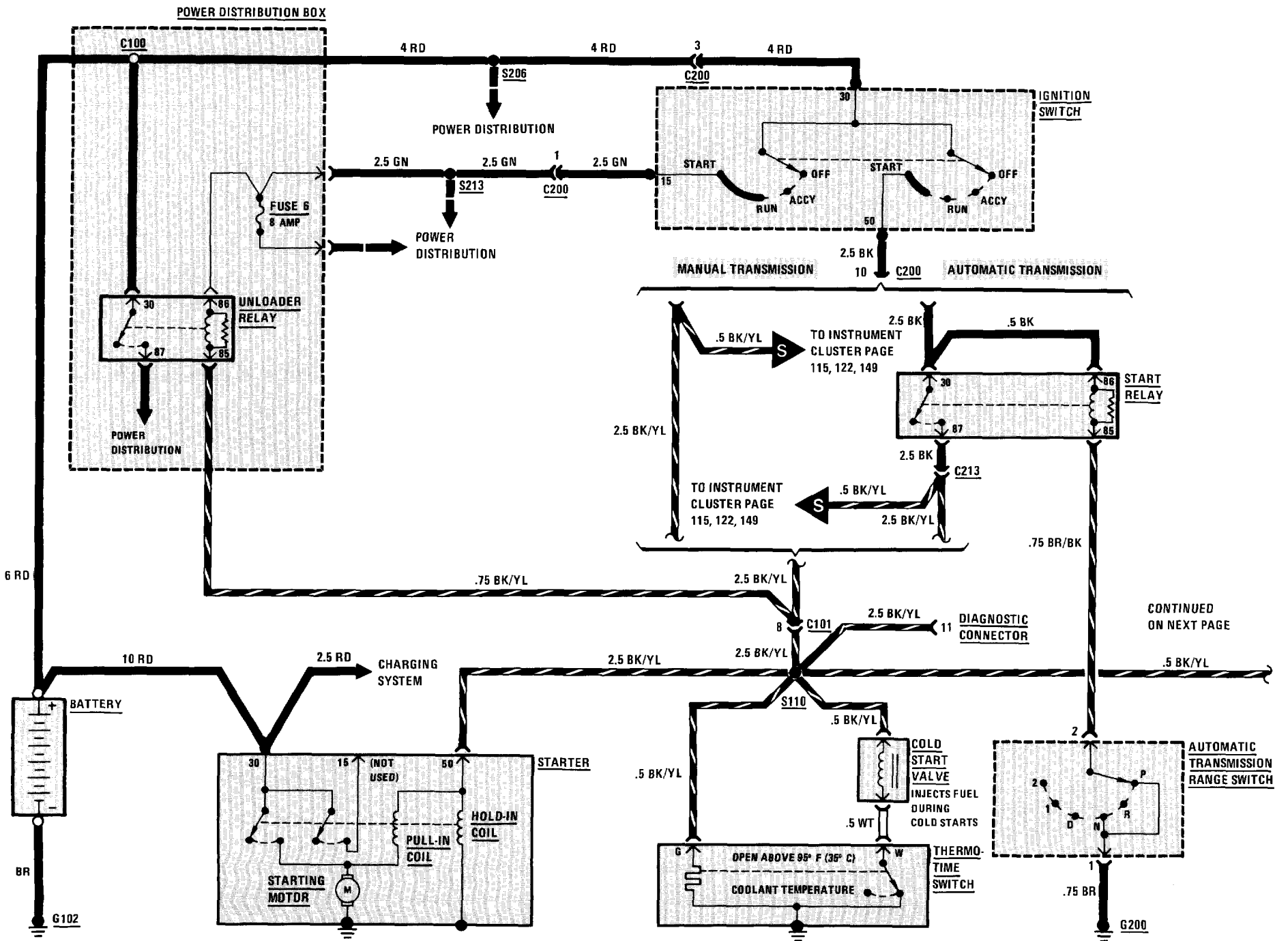

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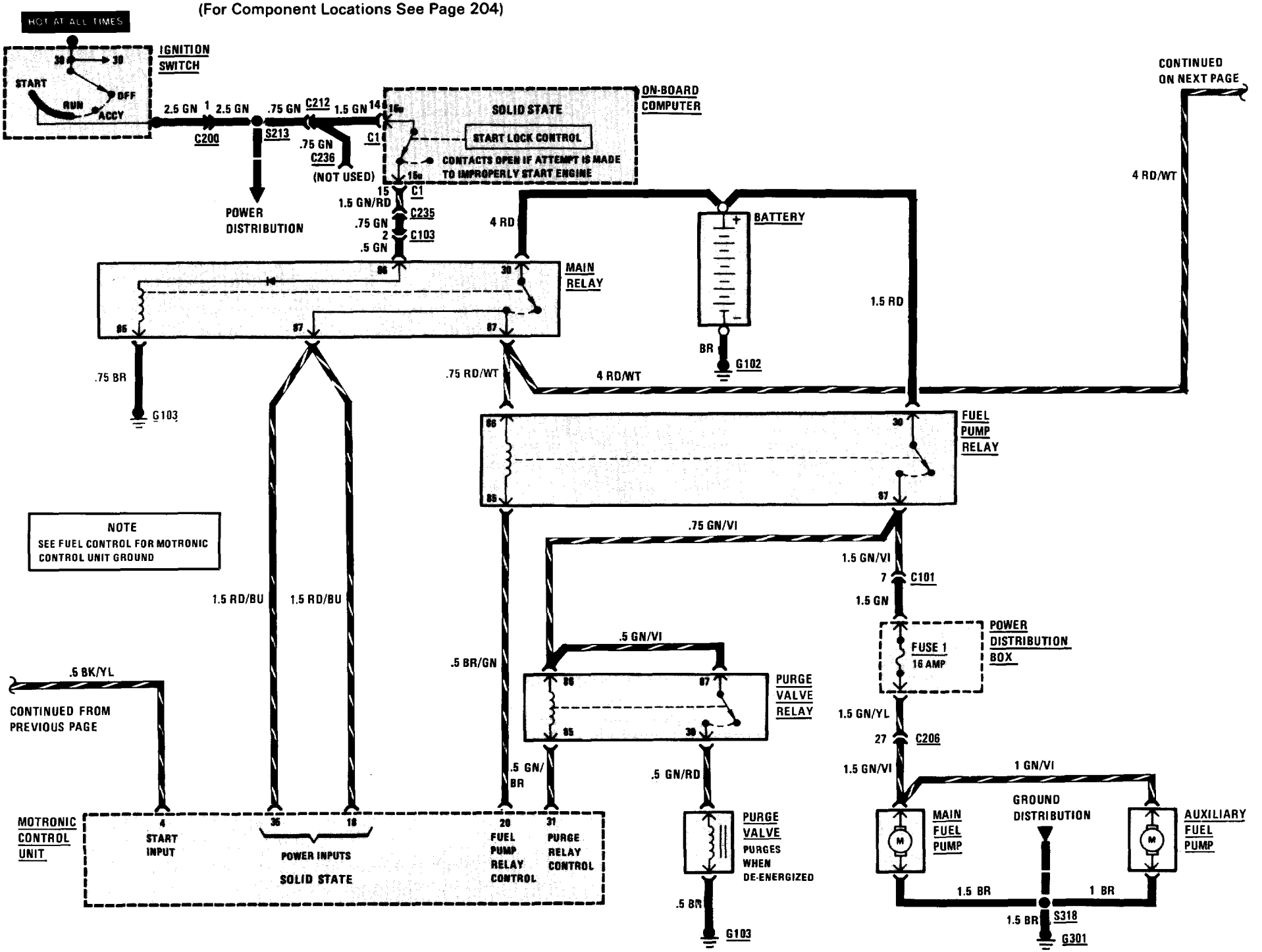

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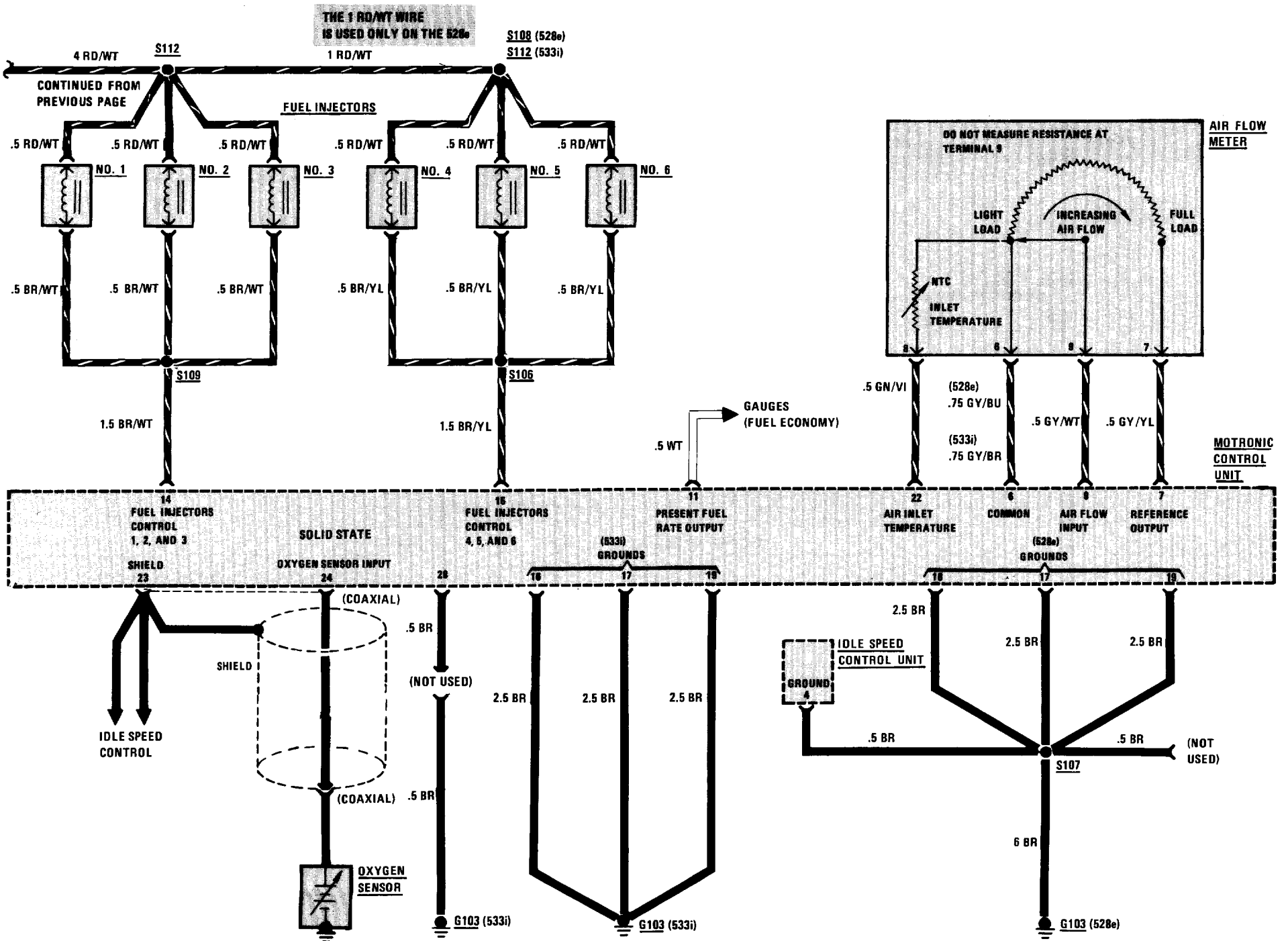
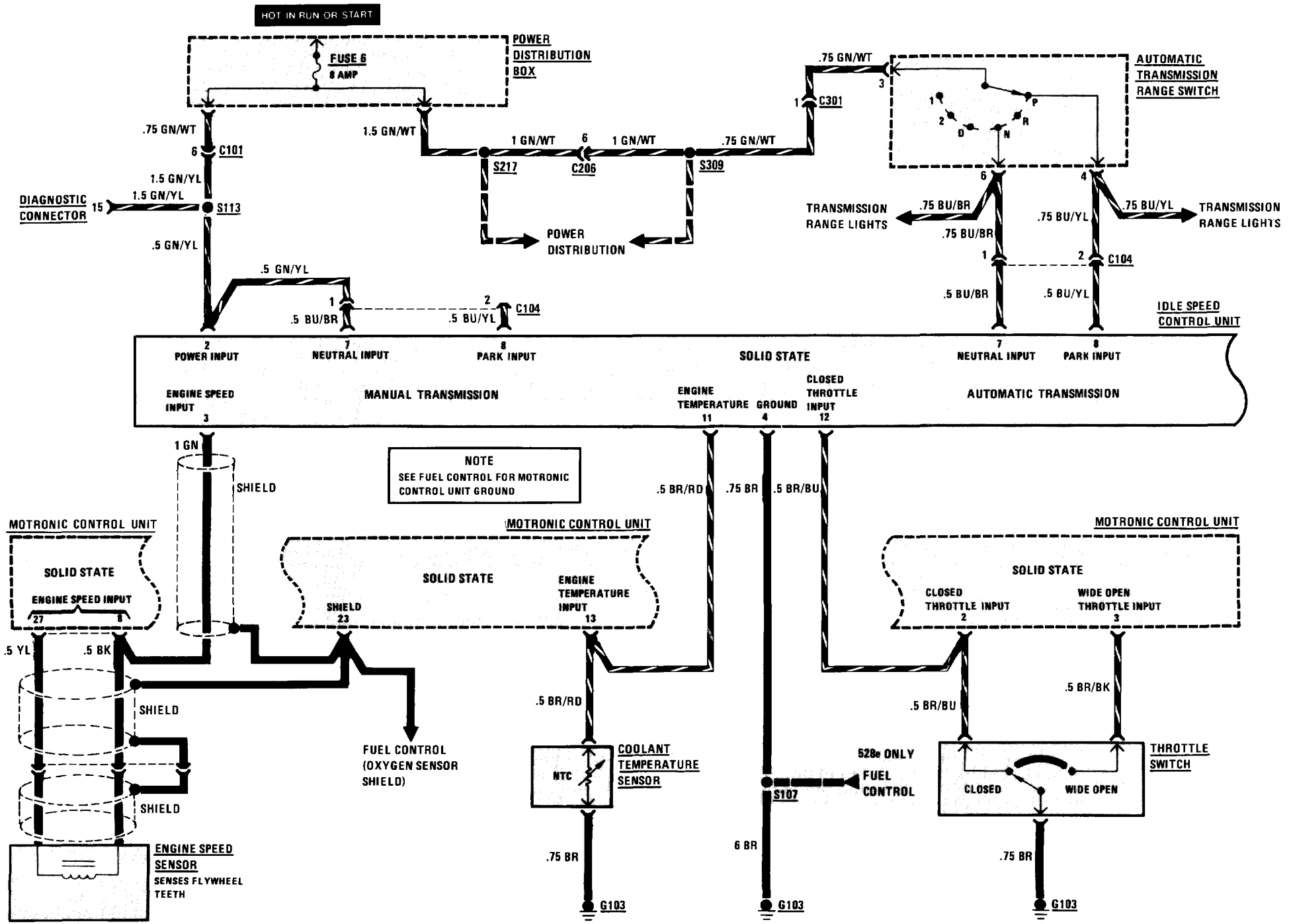
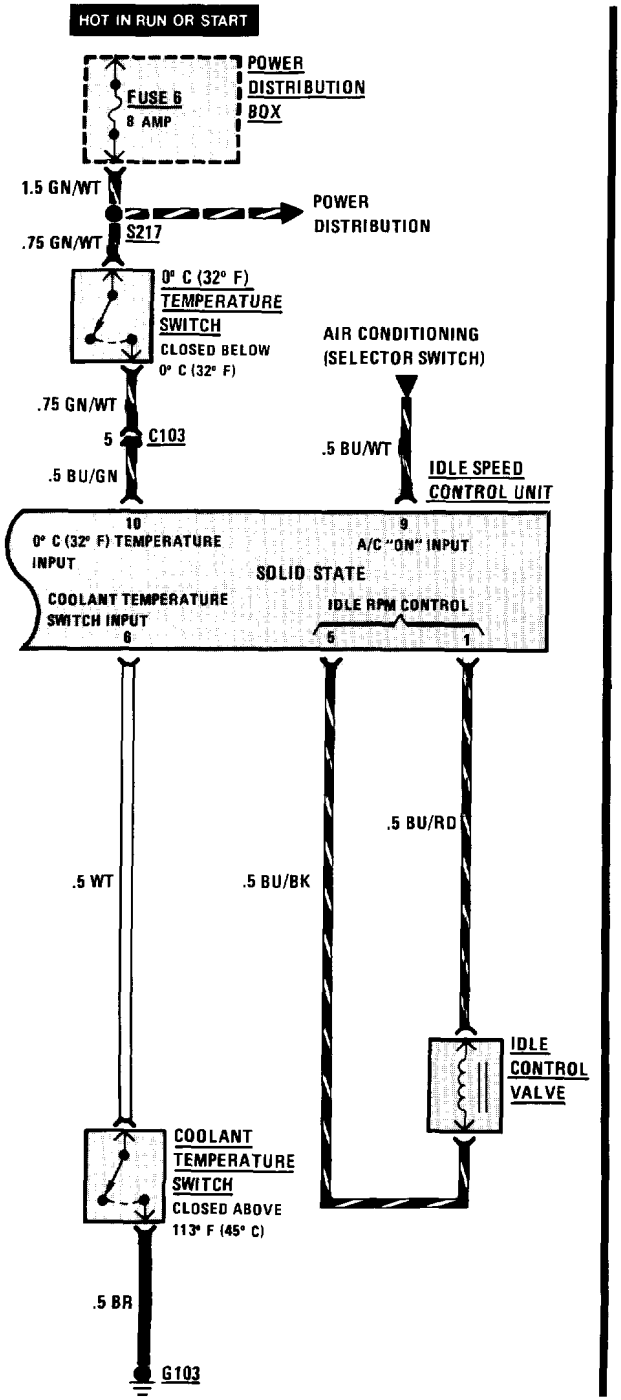


112 IDLE SPEED CONTROL

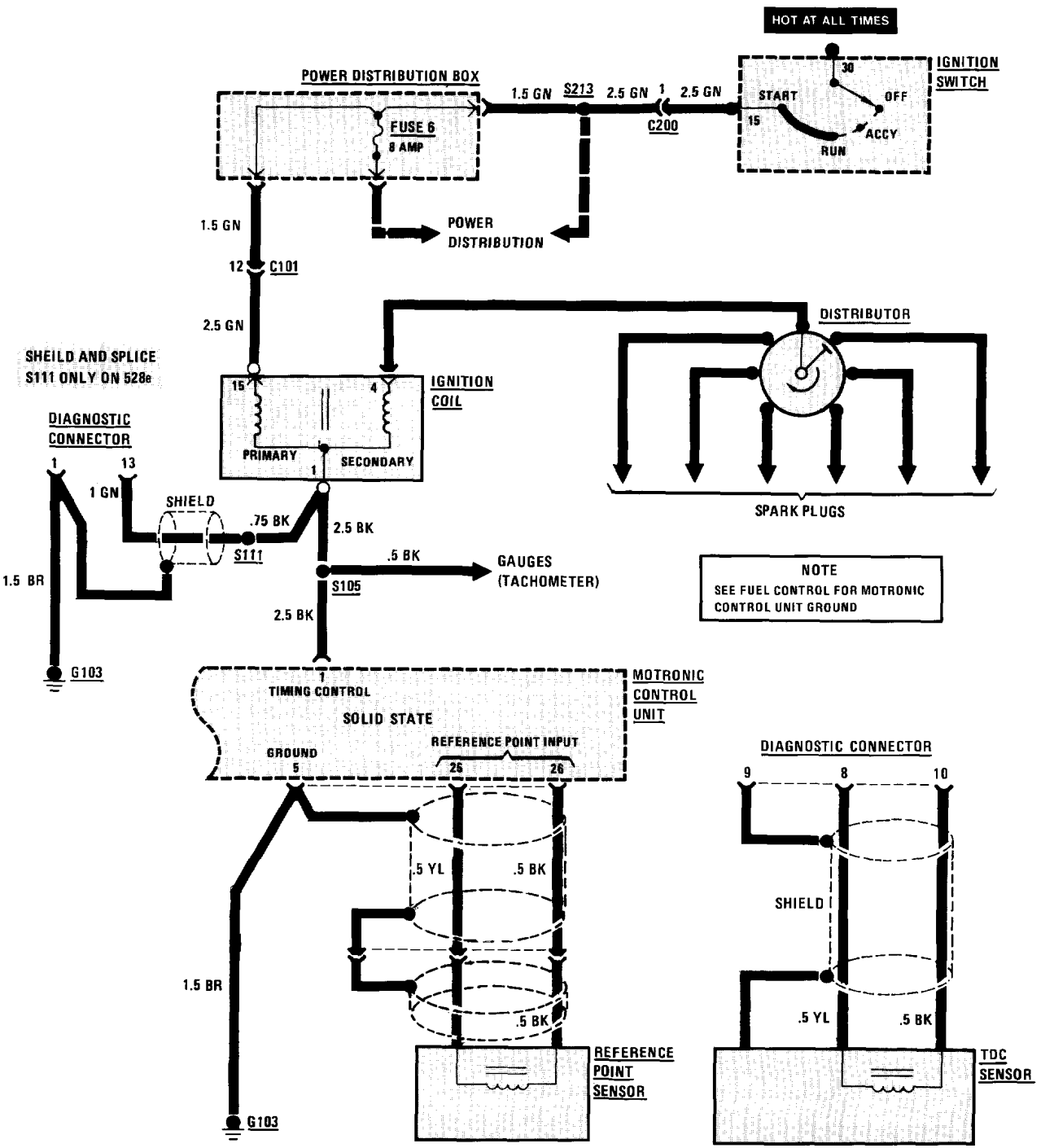
(For Component Locations See Page 206)



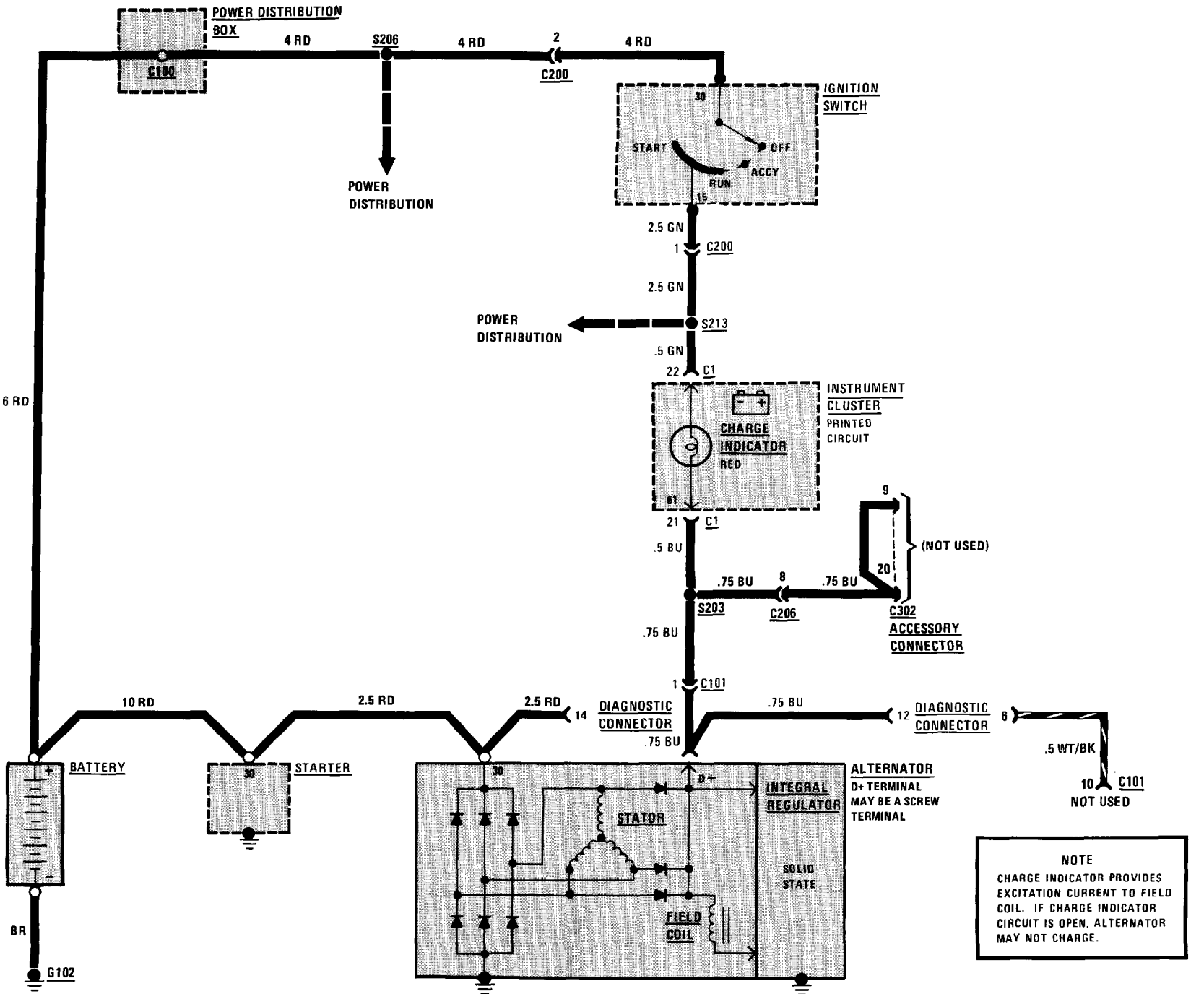
(For Component Locations See Page 206)



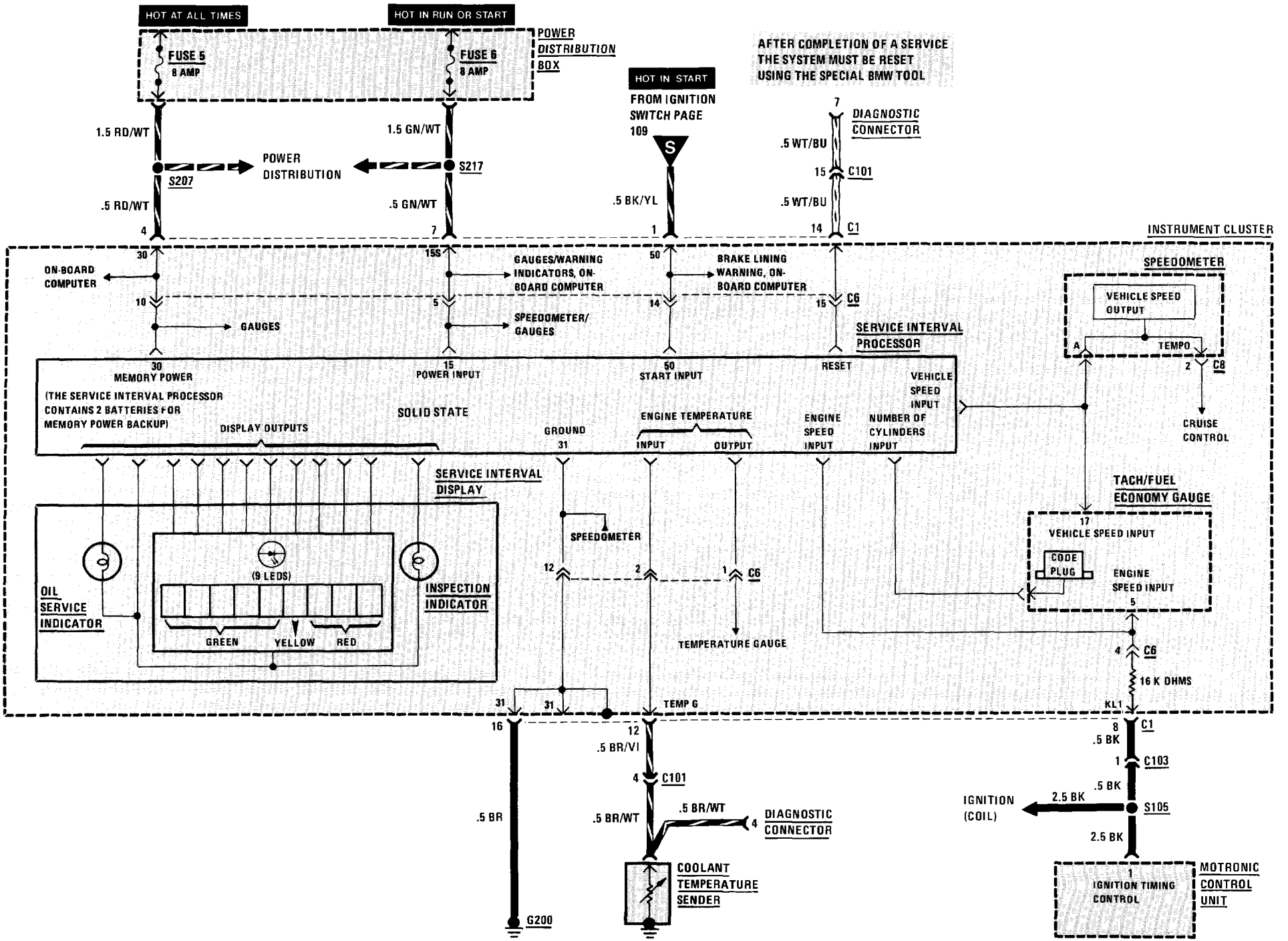
(For Component Locations See Page 207)



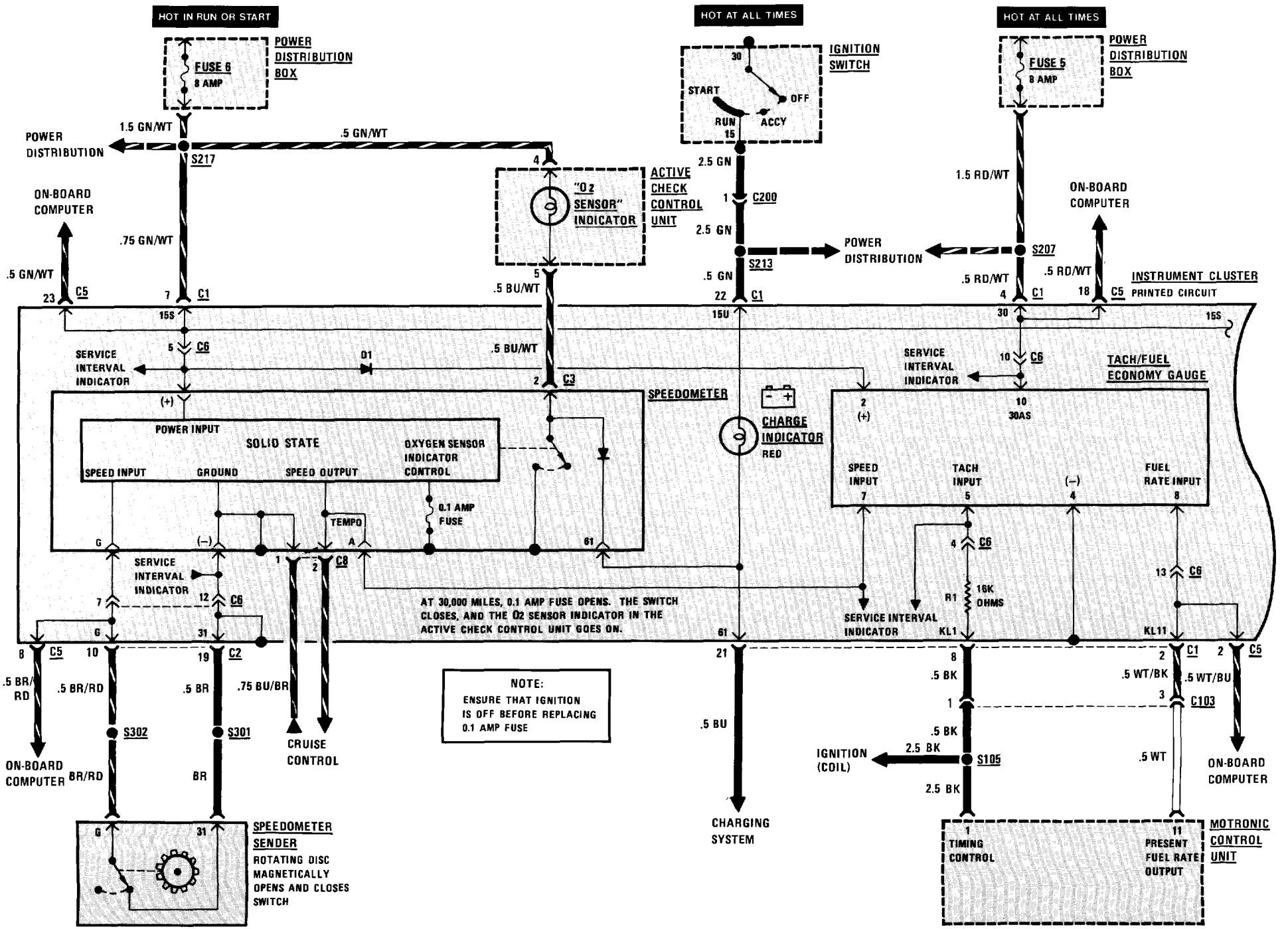
(For Component Locations See Page 203)



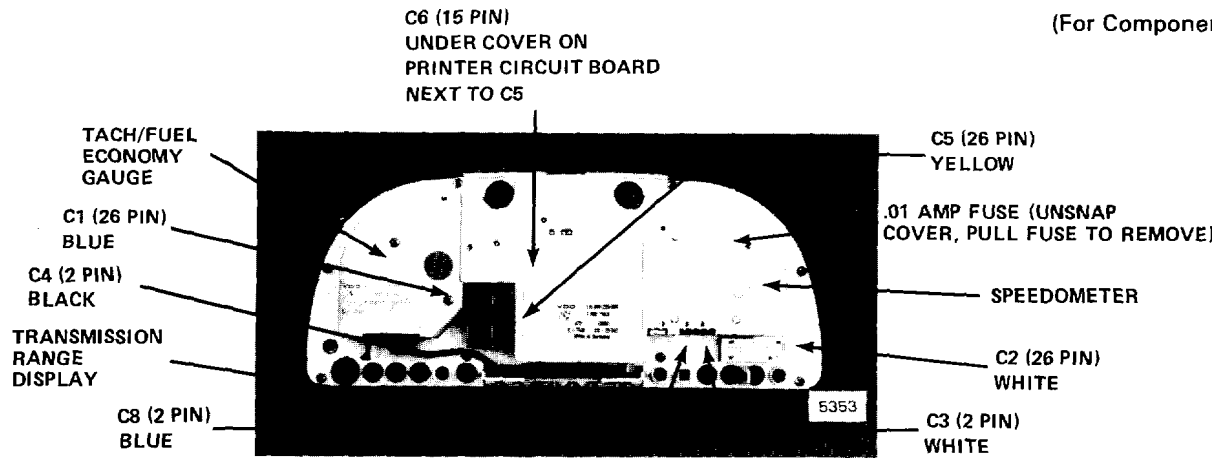
(For Component Locations See Page 211)



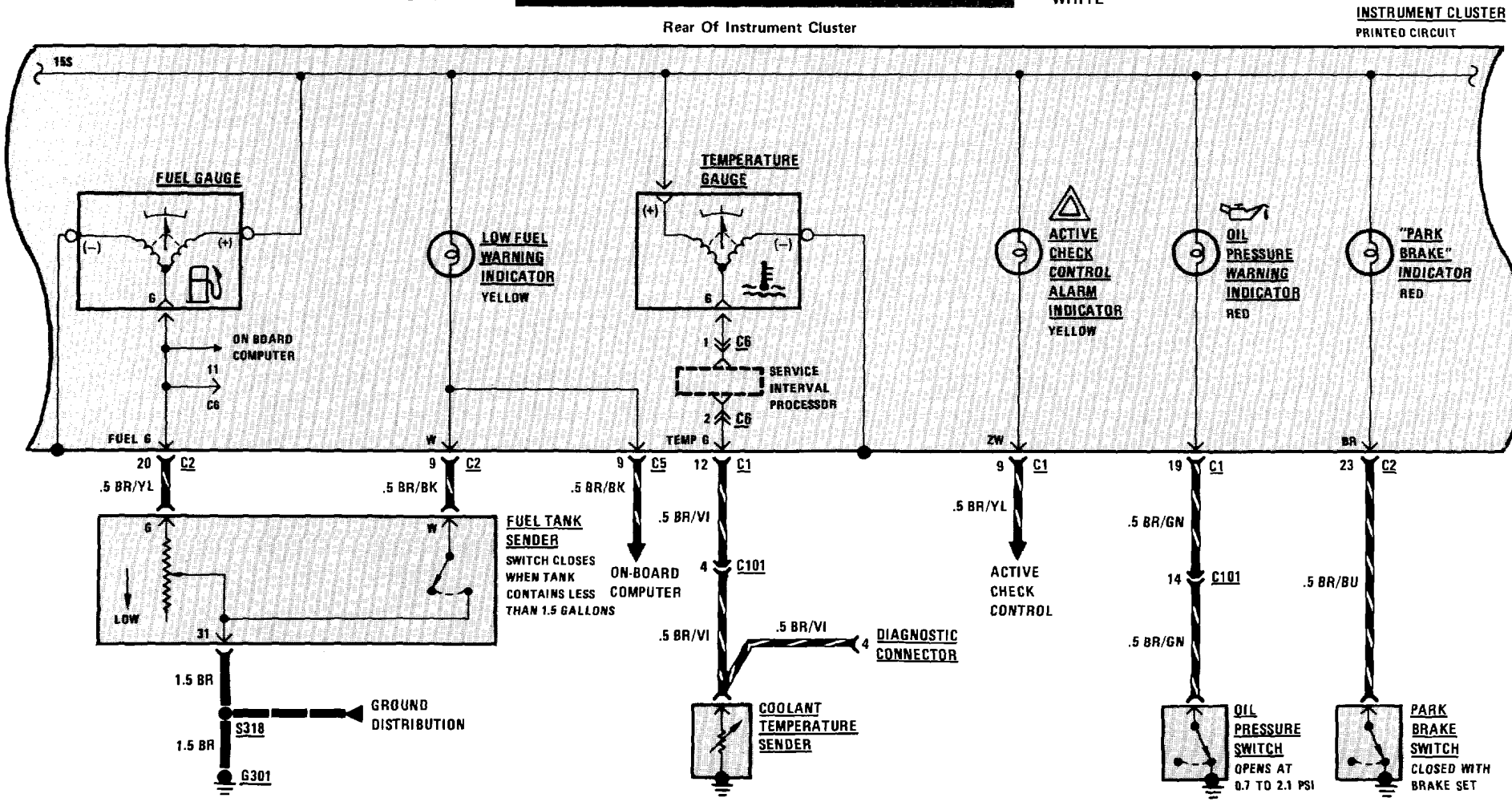
(For Component Locations See Page 216)



(For Component Locations See Page 216)

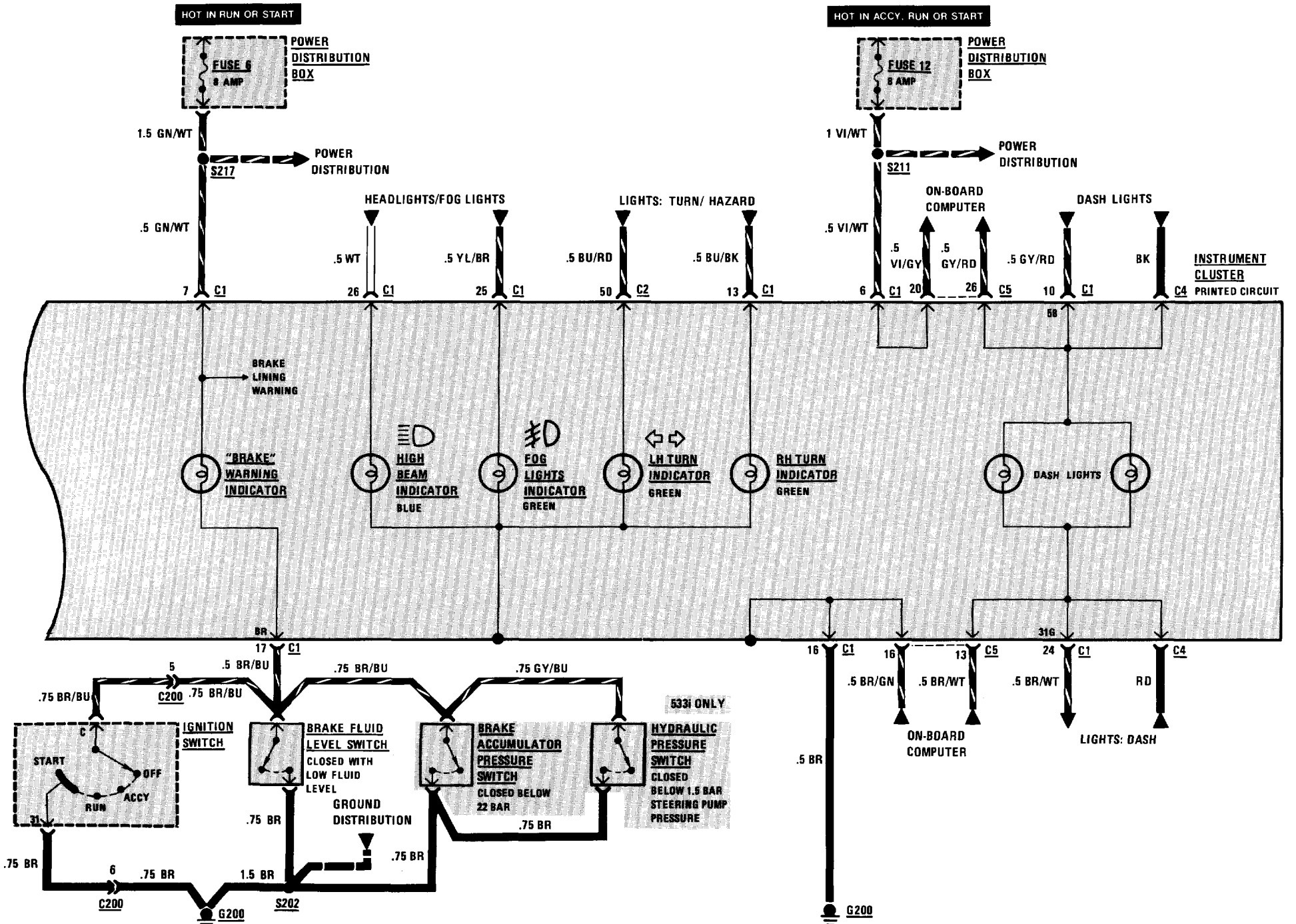


Rear Of Instrument Cluster



118 WARNING INDICATORS

(For Component Locations See Page 216)



(For Component Locations See Page 201)

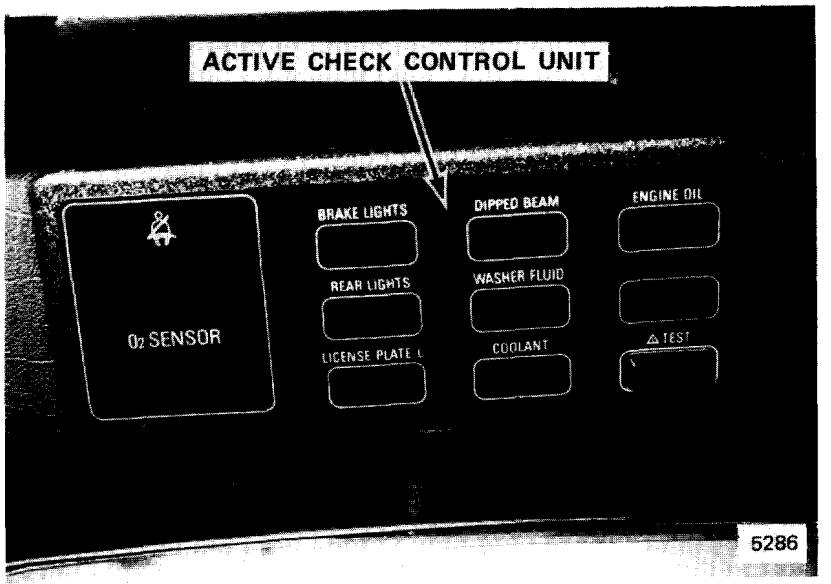


Figure 1 - Above Rear View Mirror

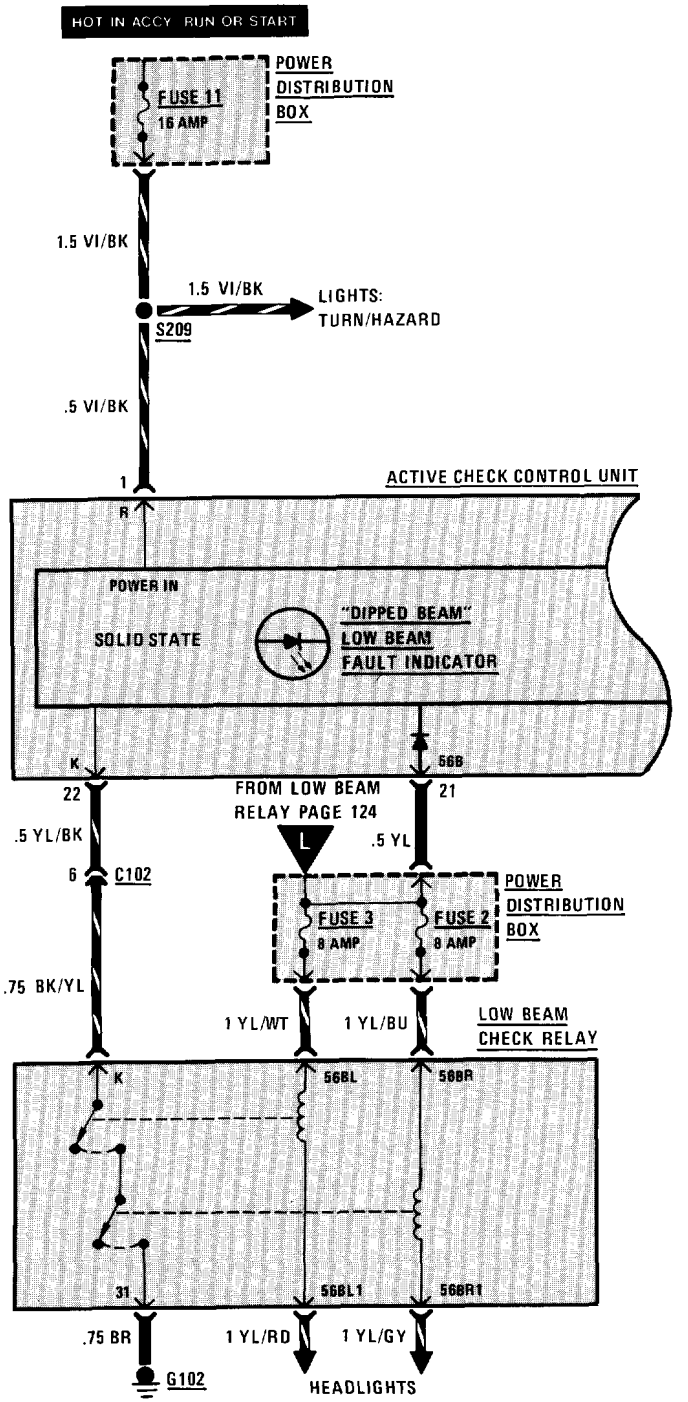
ACTIVE CHECK CONTROL

1. When the Ignition Switch is initially placed in "Run," the Active Check Control Alarm Indicator flashes, and the Active Check Control Unit Brake Light LED and panel light illuminate for test purposes. Depressing the brake pedal clears the display.

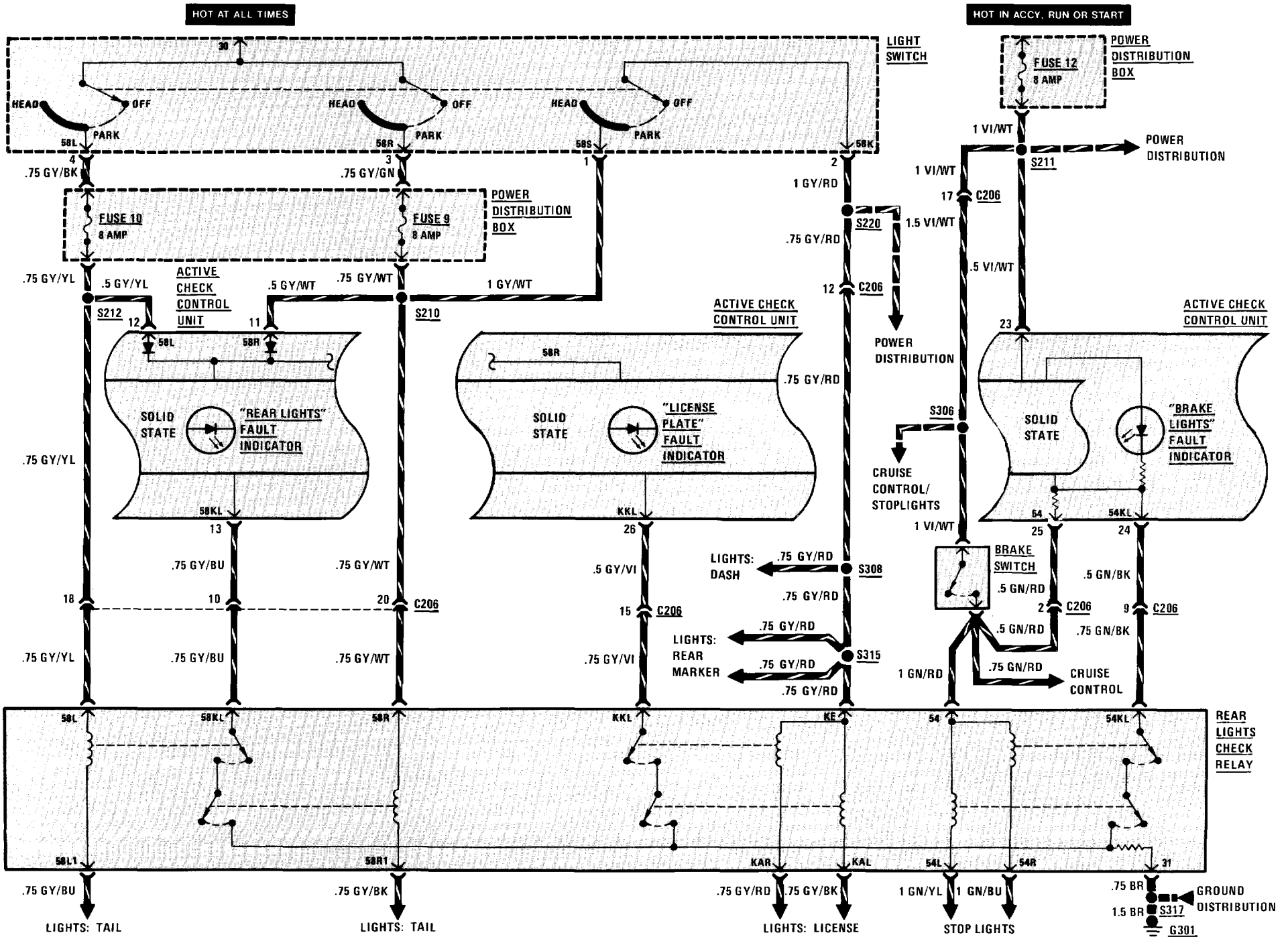
2. When the Ignition Switch is places in "Run," fault monitoring begins. To monitor the low beams, rear lights, or license lights, those circuits must be on. The brake lights are monitored only while the brake pedal is depressed.

3. When a fault occurs, the alarm indicator flashes, the appropriate LED indicator lights, and the panel light goes on for five seconds. Depressing the test button will clear the alarm indicator, but the LED fault indicator remains on.

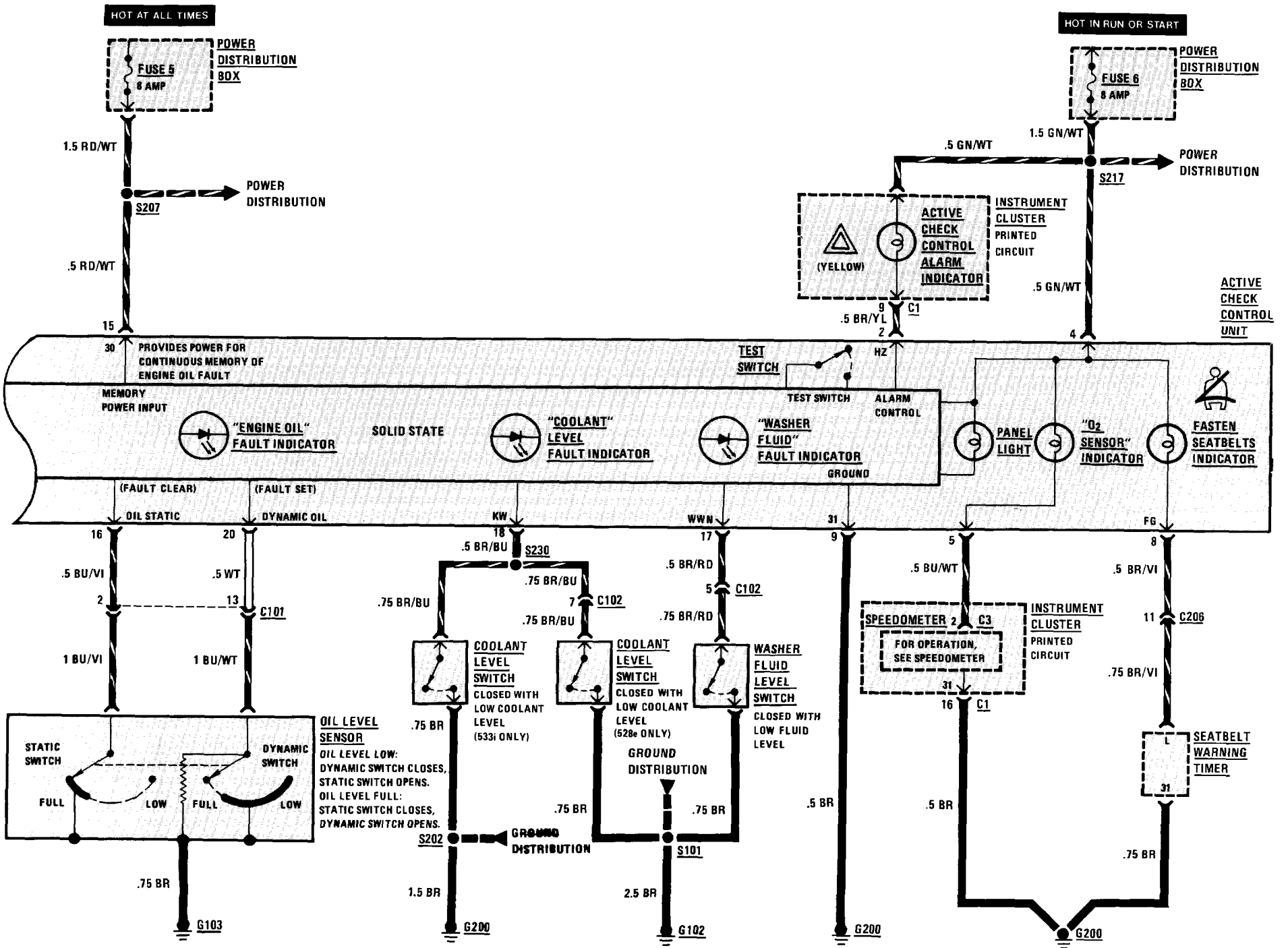
4. To test the unit, depress the test button. The LED fault indicators and panel lights should go on.



(For Component Locations See Page 201)

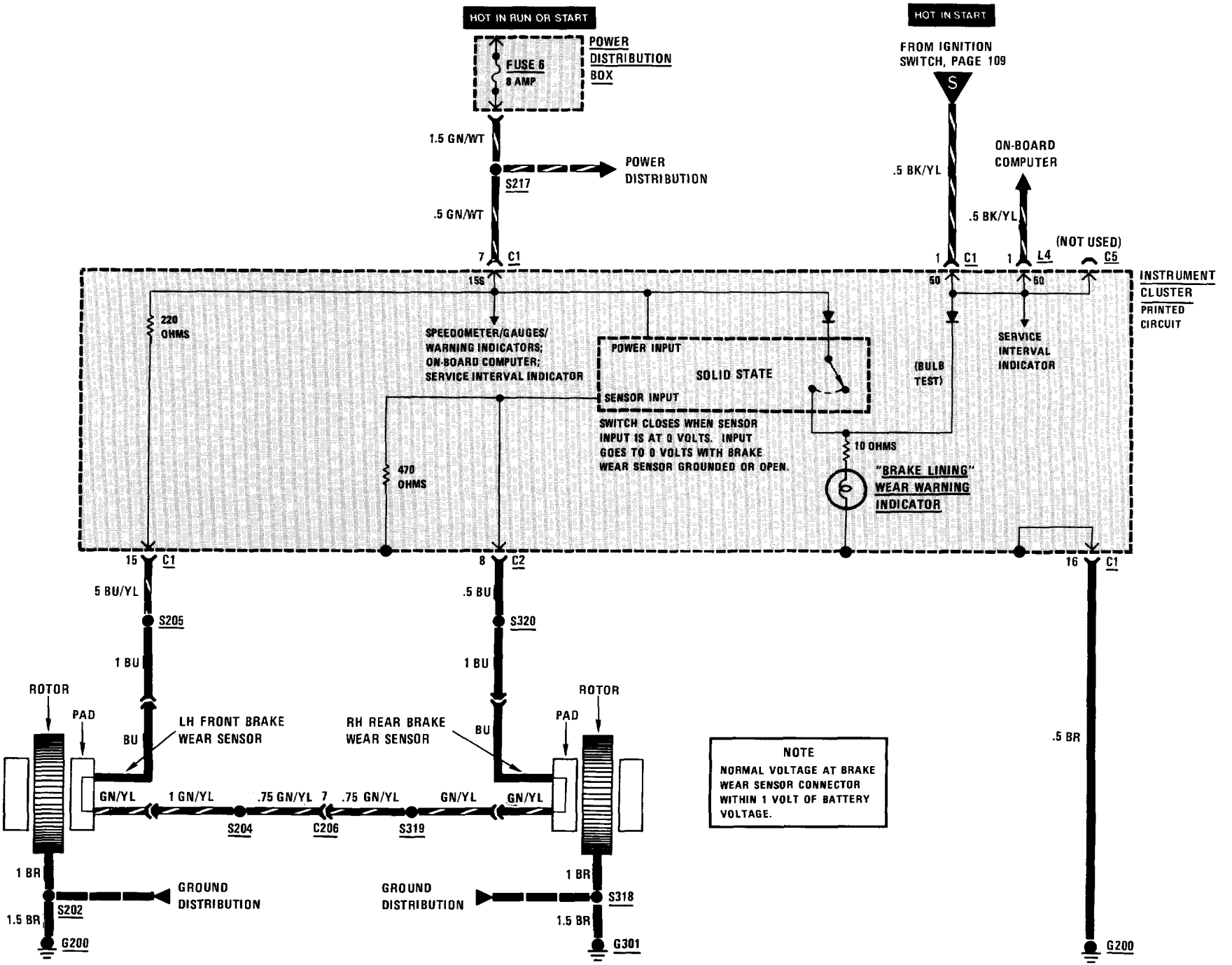


(For Component Locations See Page 201)

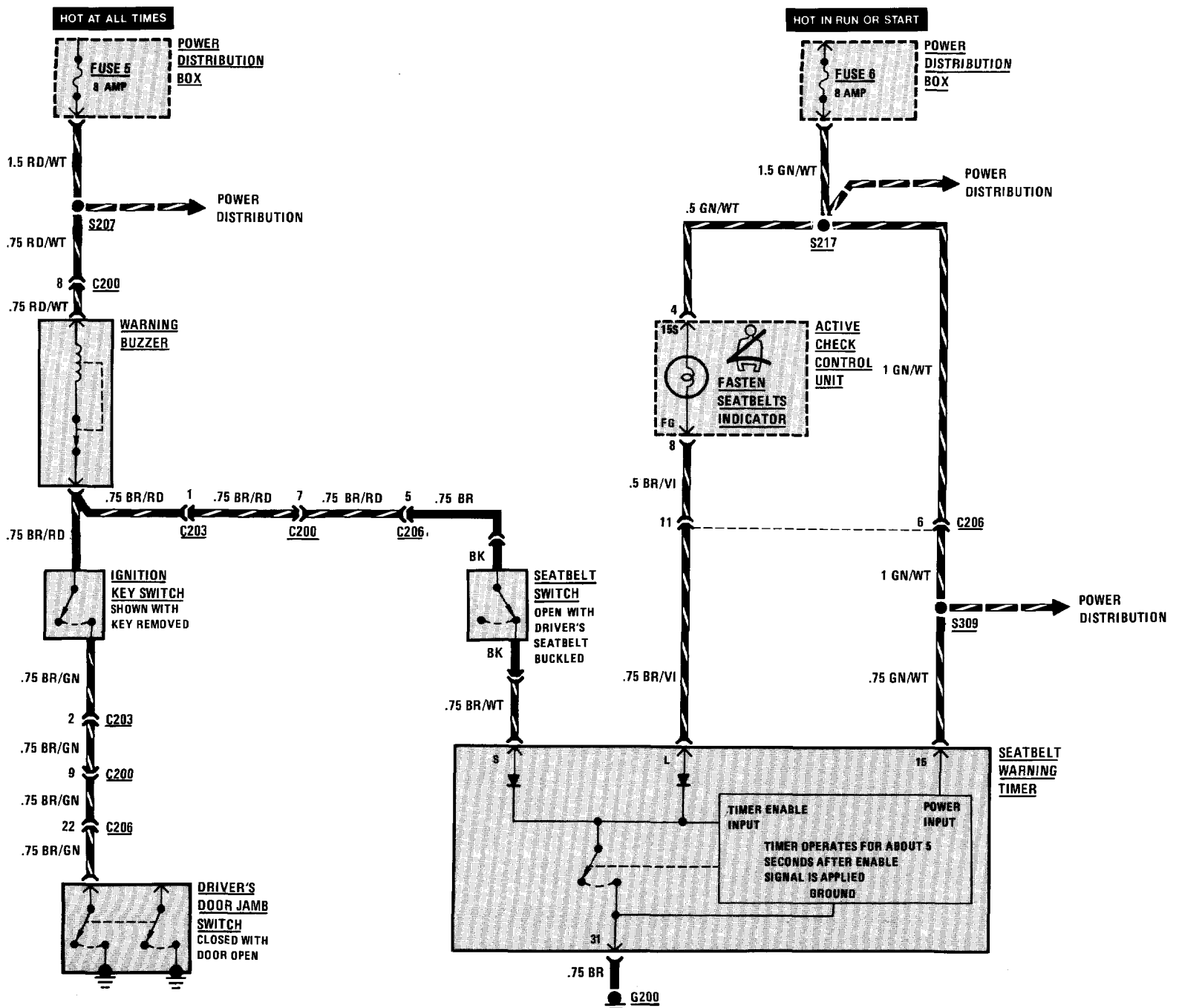


122 BRAKE LINING WARNING

(For Component Locations See Page 202)

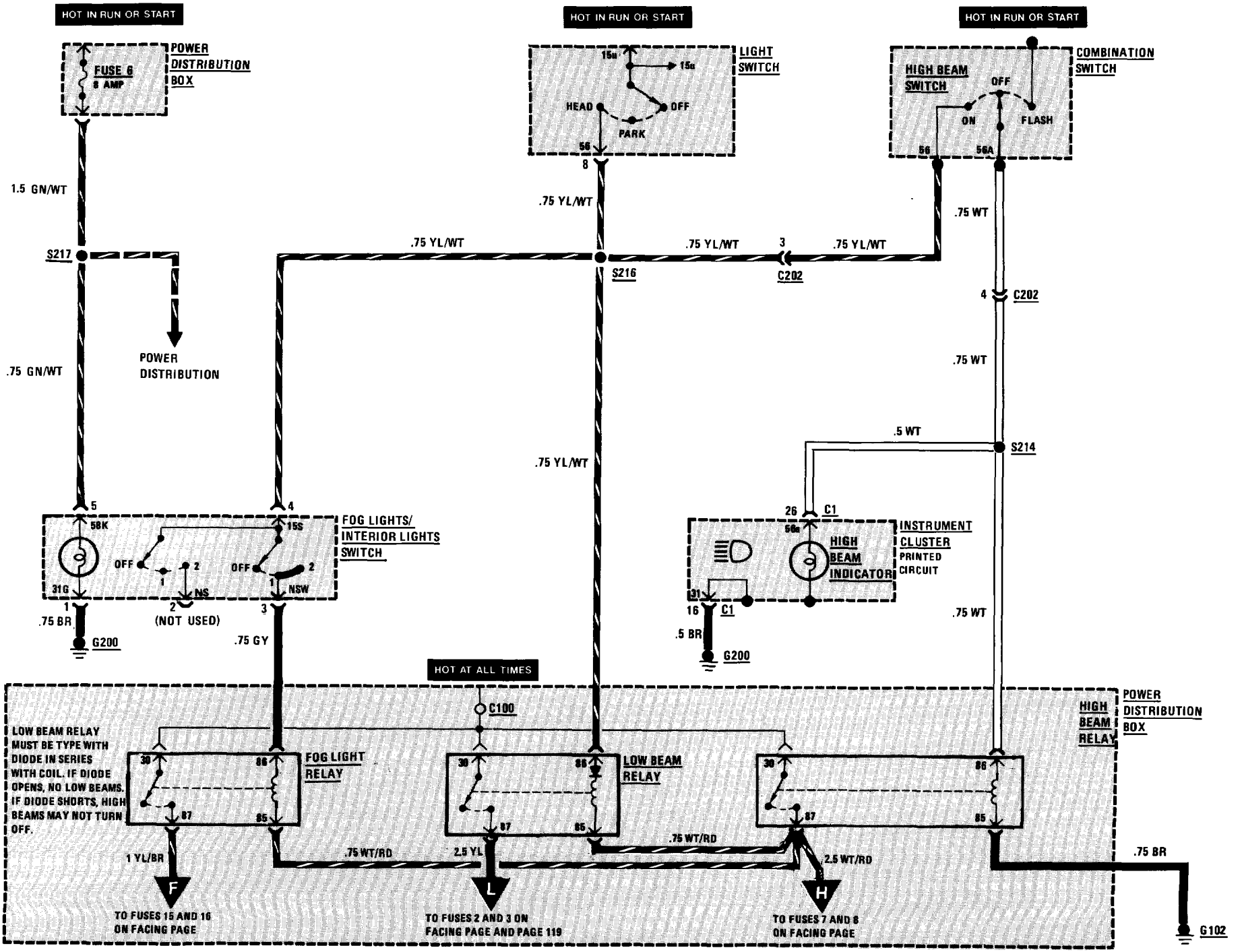


(For Component Locations See Page 207)



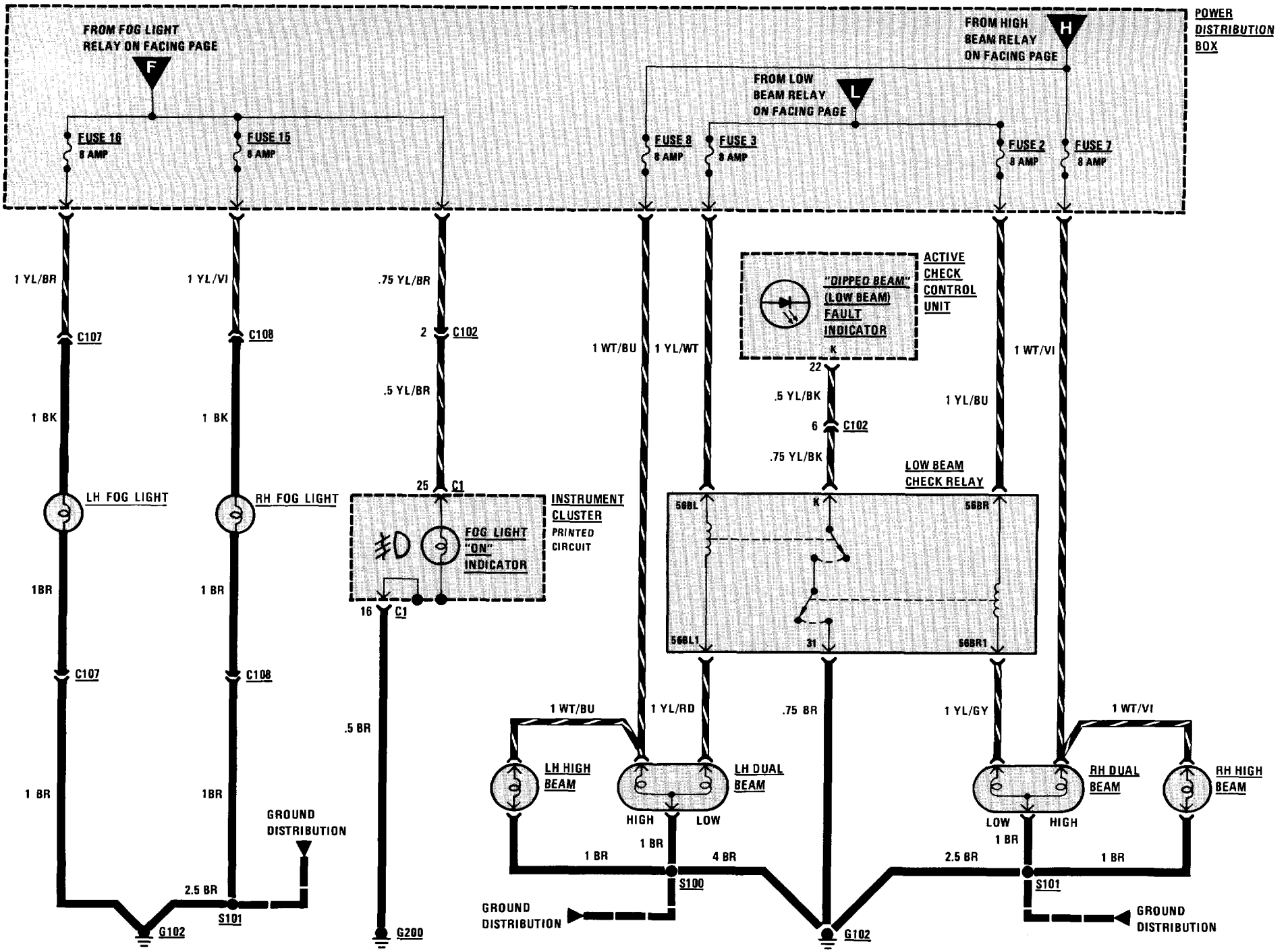
124 HEADLIGHTS (CONTROL)/FOG LIGHTS (CONTROL)

(For Component Locations See Page 205)



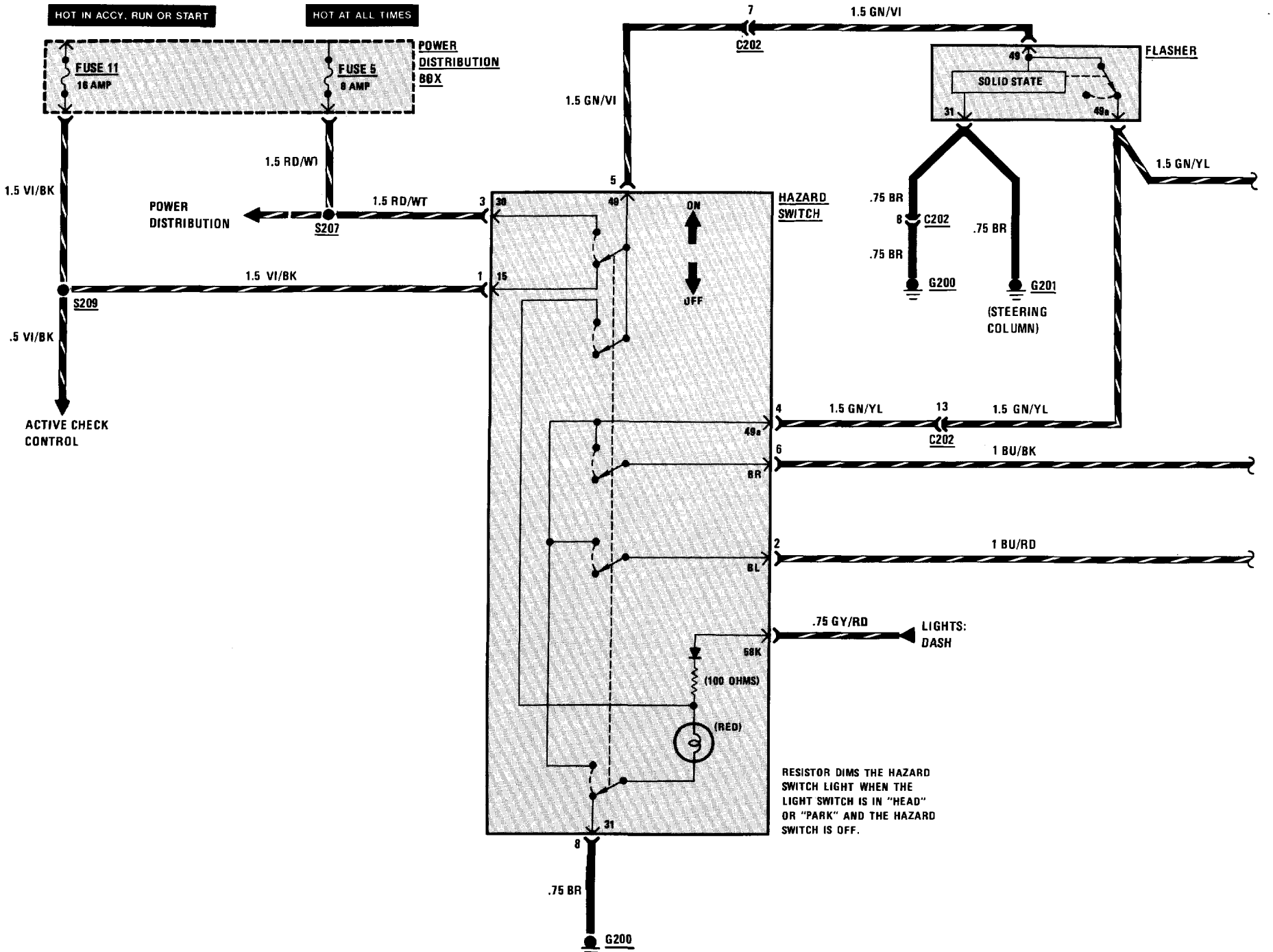
CONTINUED ON PAGE 125

(For Component Locations See Page 205)

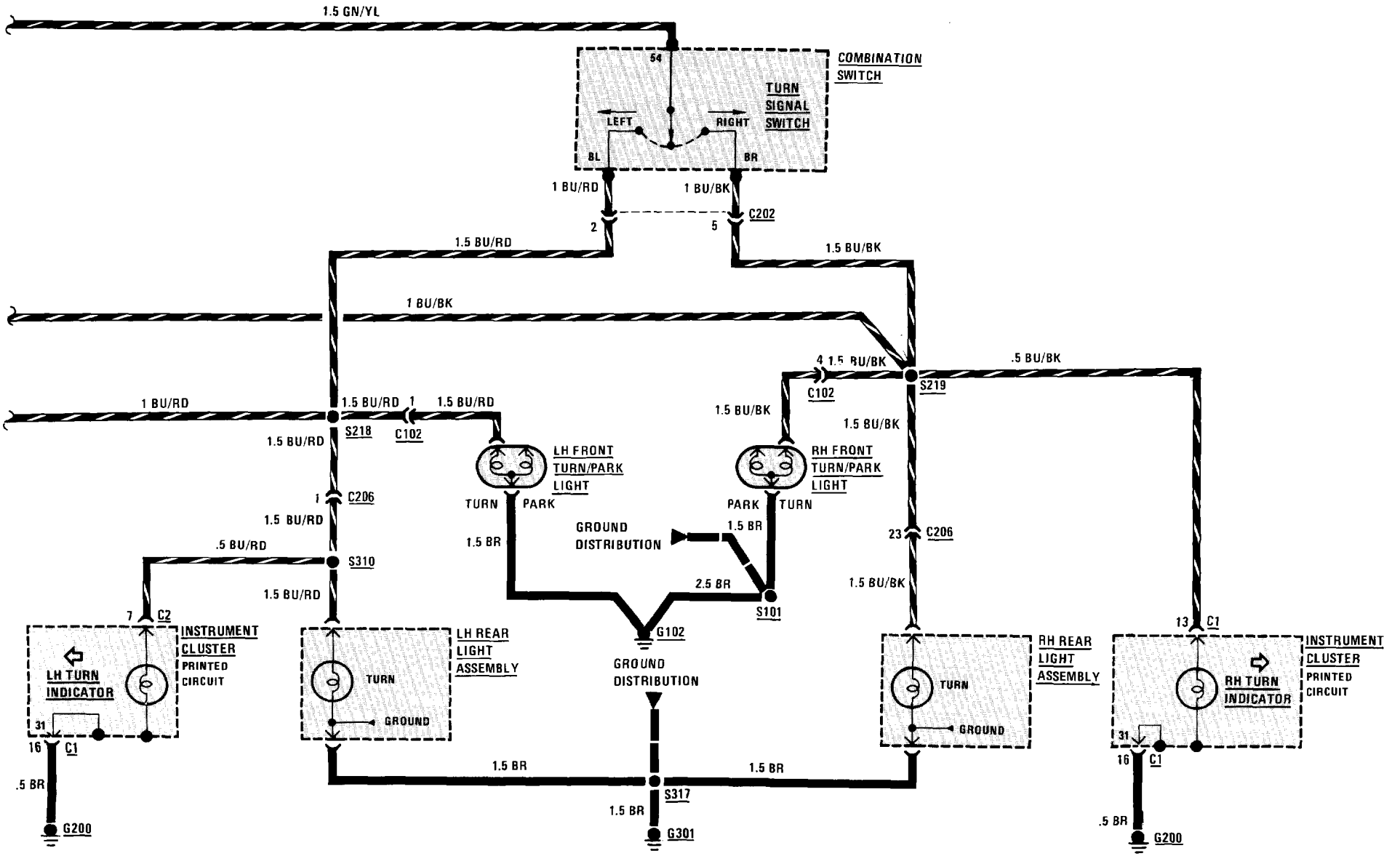


126 LIGHTS: TURN/HAZARD WARNING

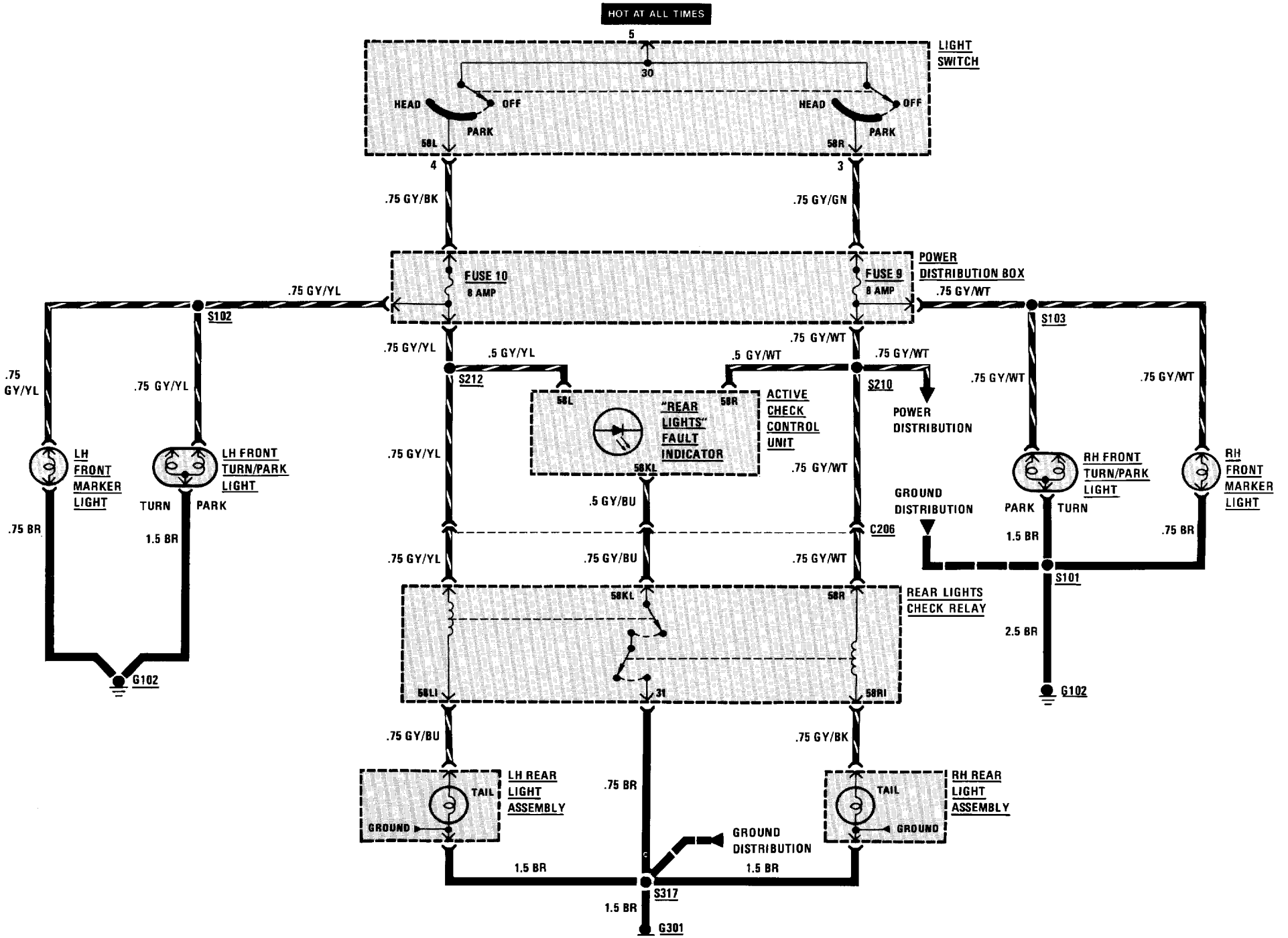
(For Component Locations See Page 209)



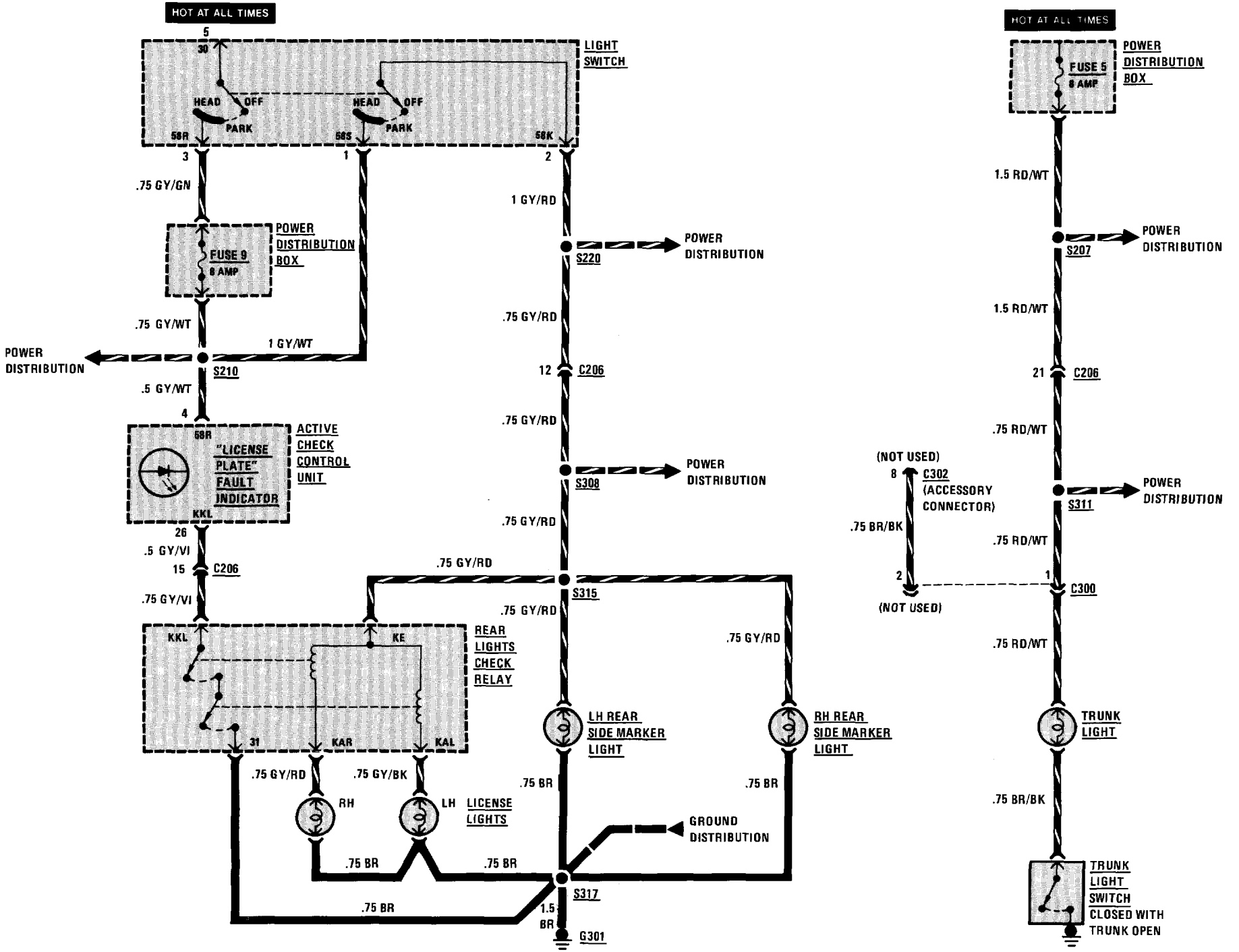
(For Component Locations See Page 209)



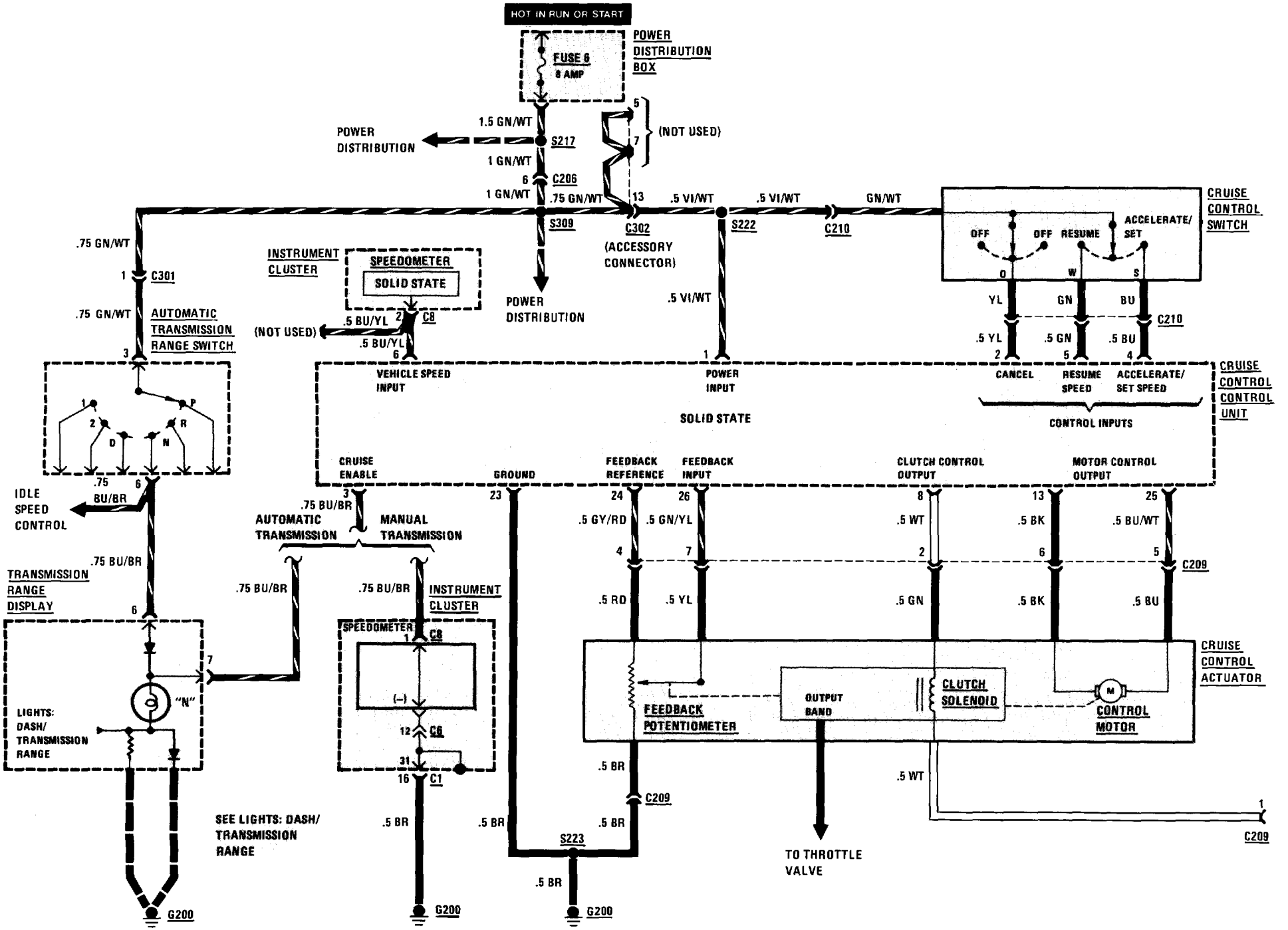
(For Component Locations See Page 208)



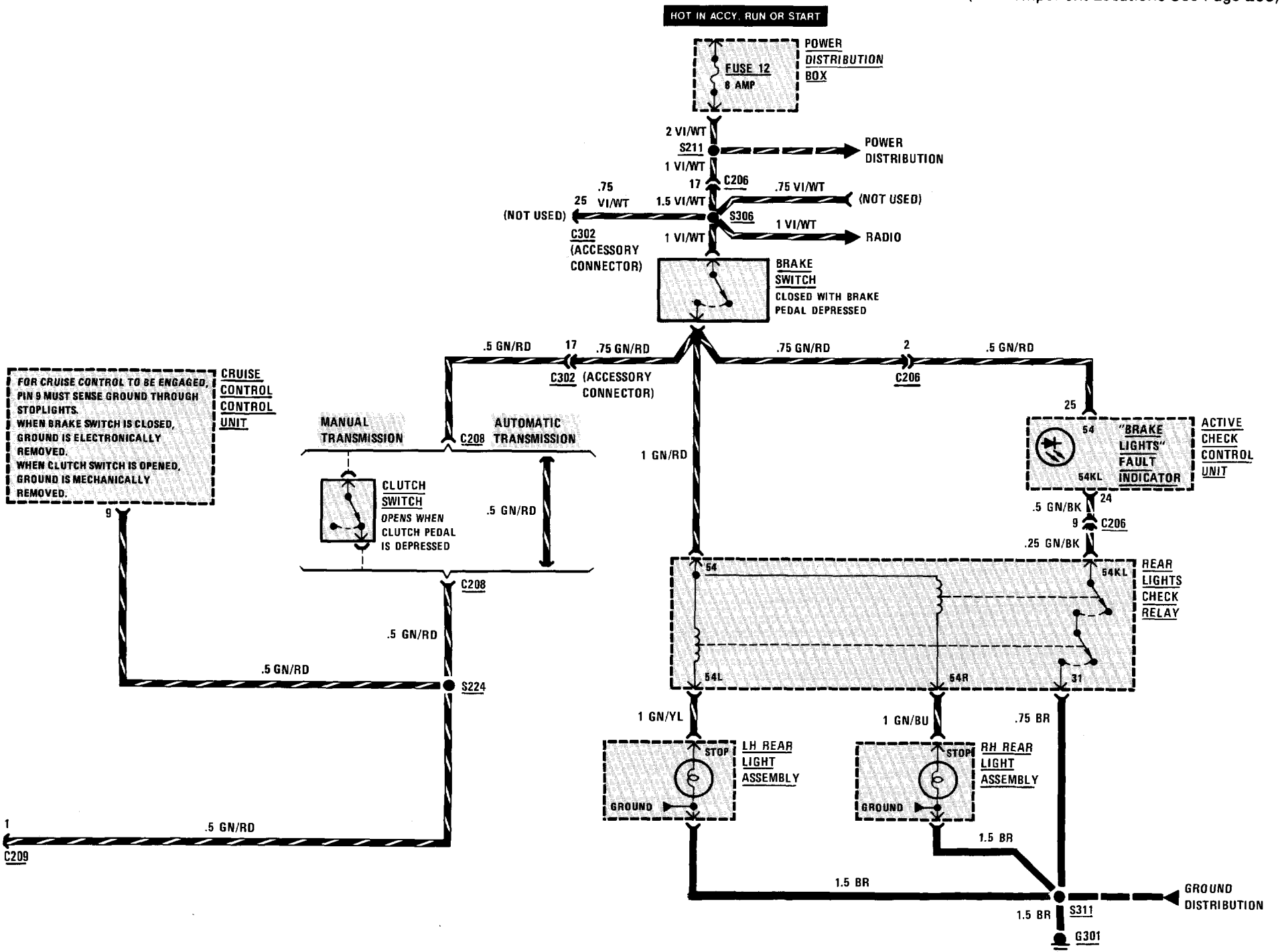
(For Component Locations See Page 208)



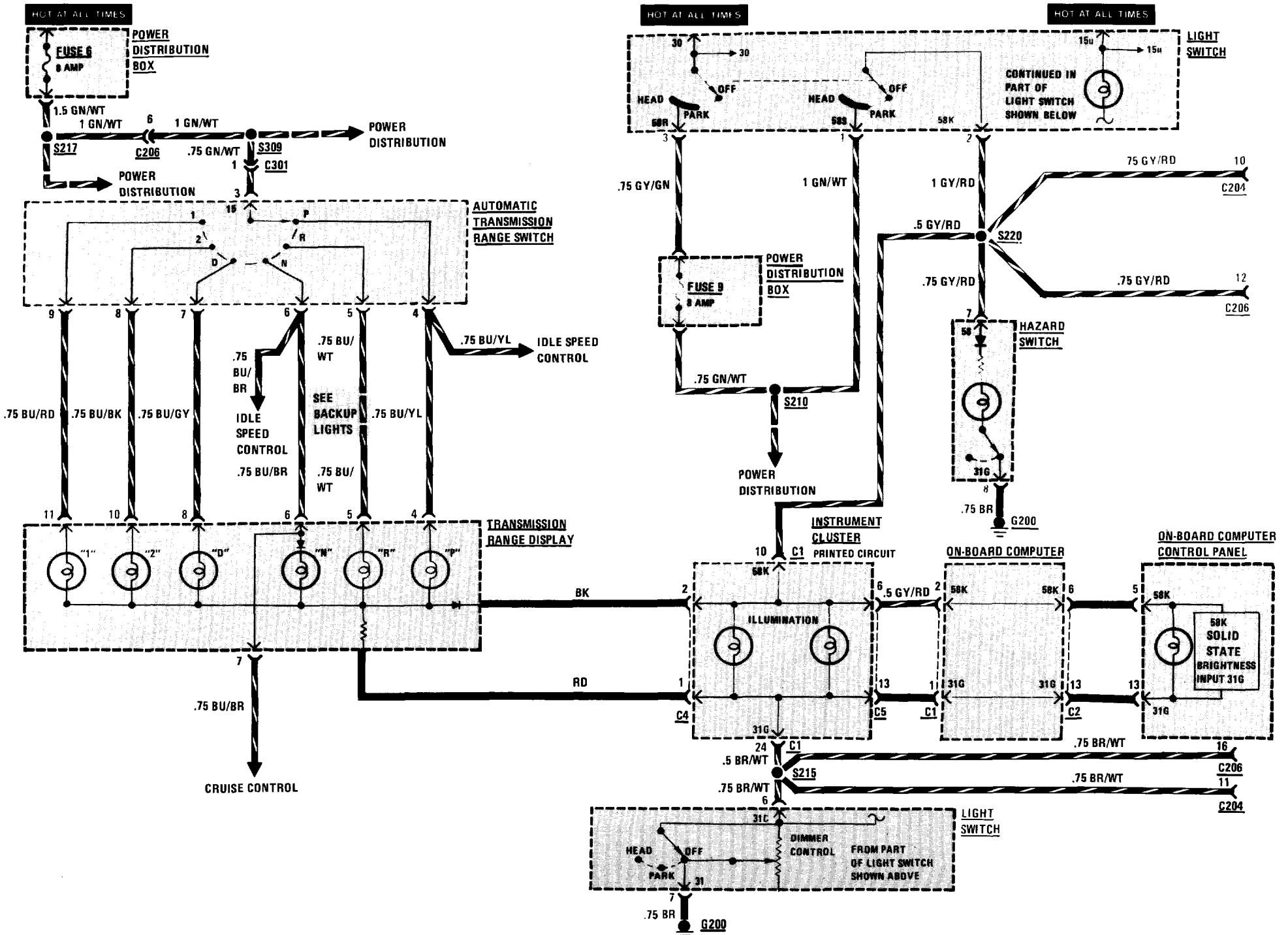
(For Component Locations See Page 203)



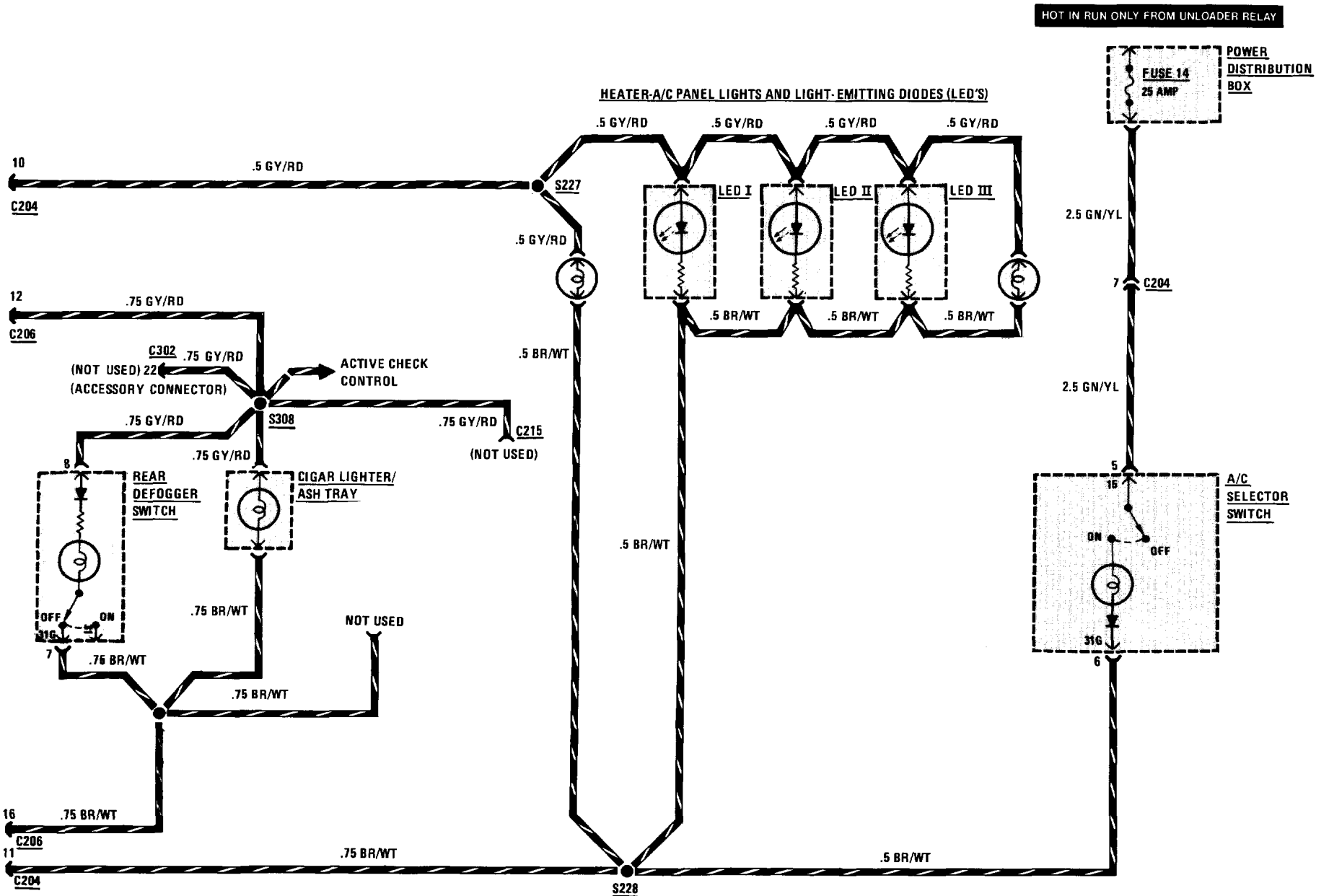
(For Component Locations See Page 203)



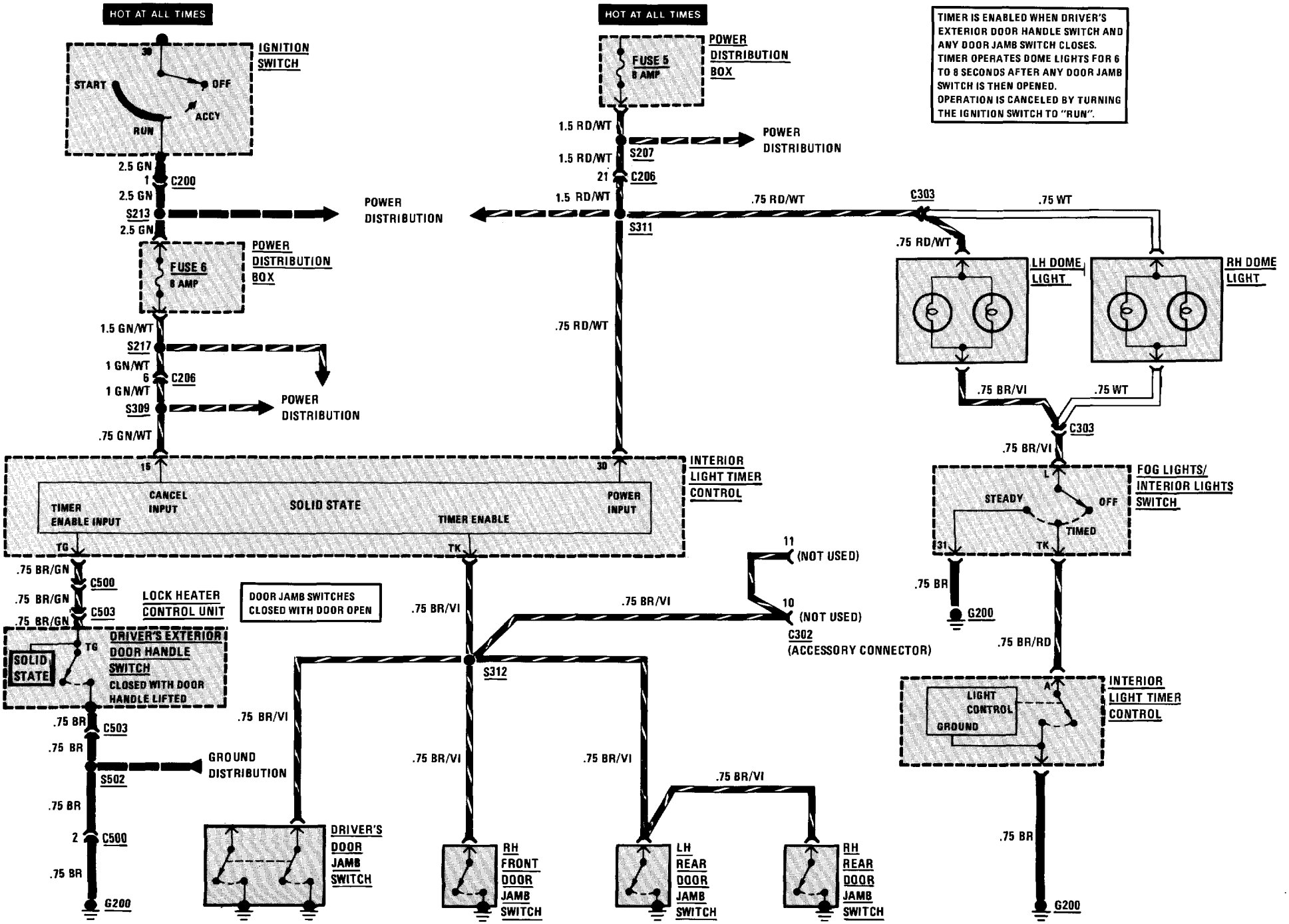
(For Component Locations See Page 208)



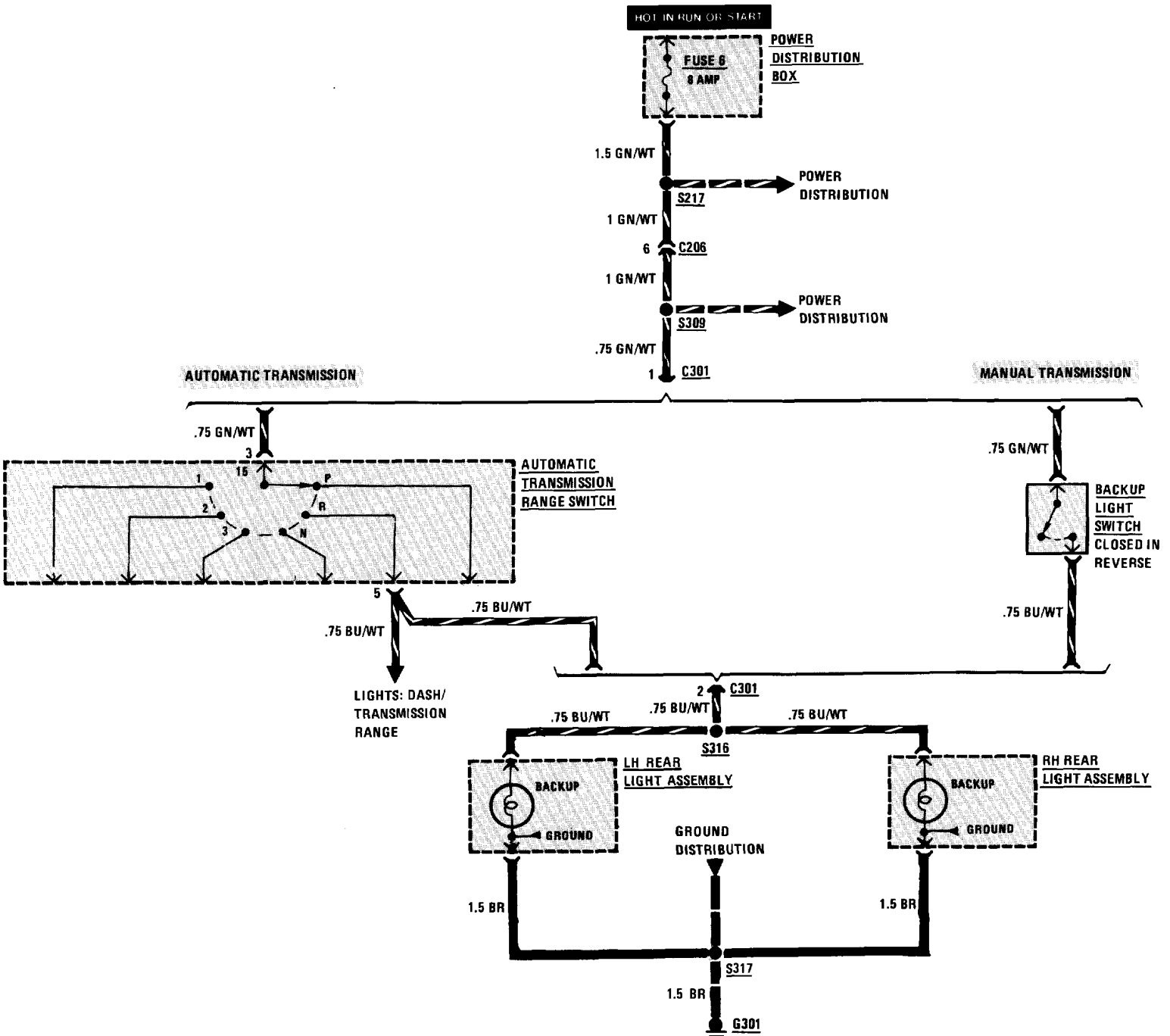
(For Component Locations See Page 208)



(For Component Locations See Page 207)

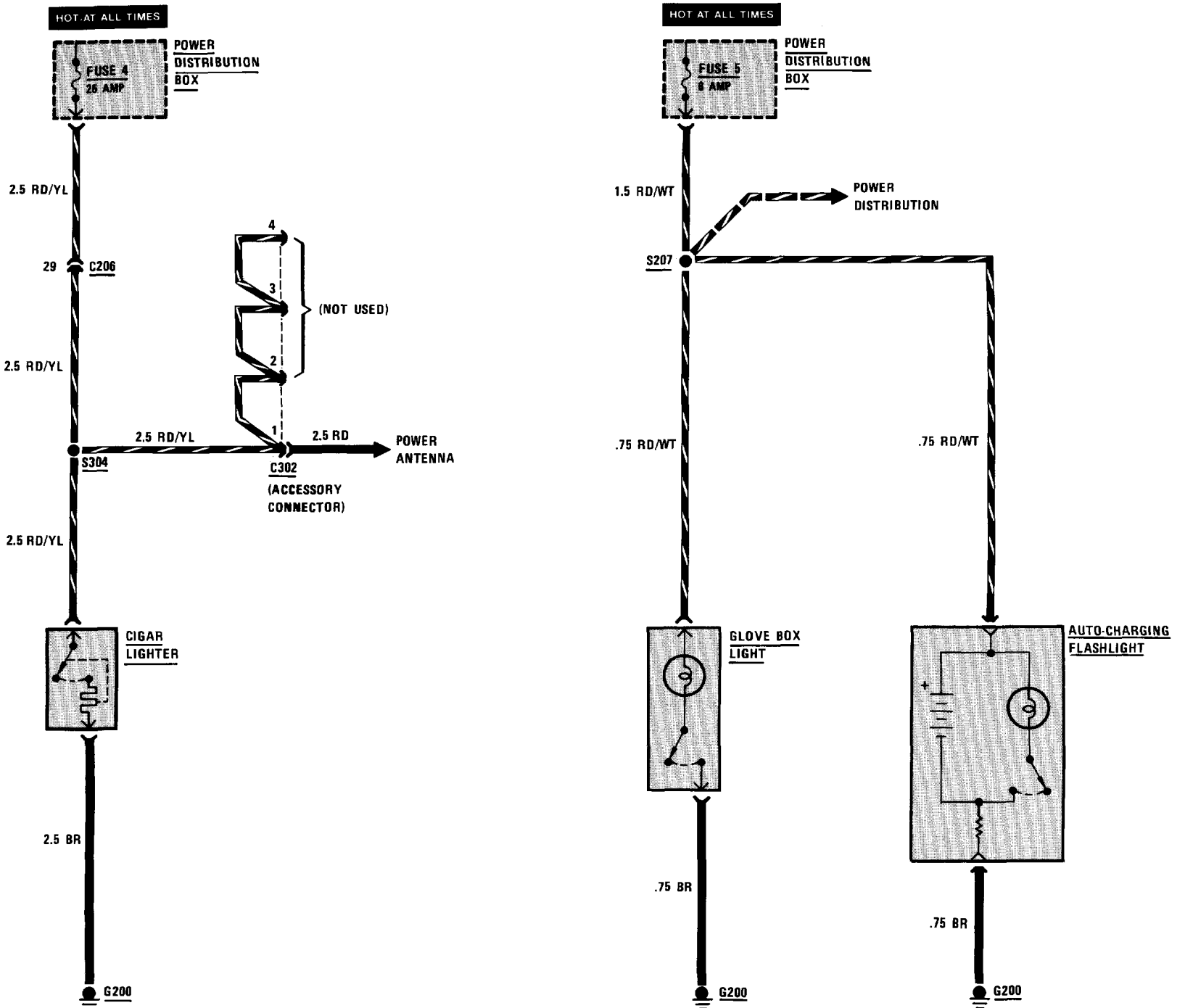


(For Component Locations See Page 202)



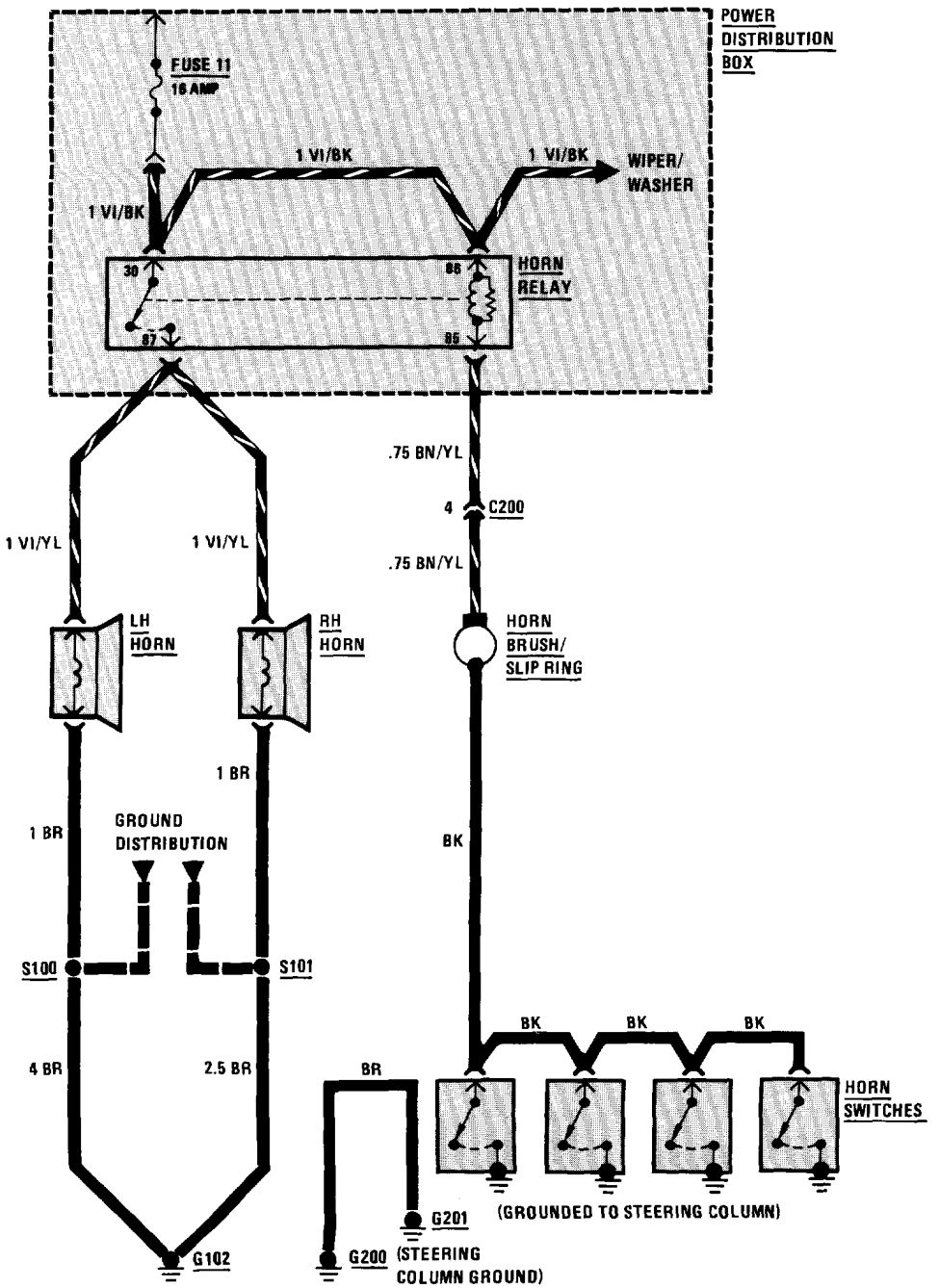
136 CIGAR LIGHTER/GLOVE BOX LIGHT/AUTO-CHARGING FLASHLIGHT

(For Component Locations See Page 203)



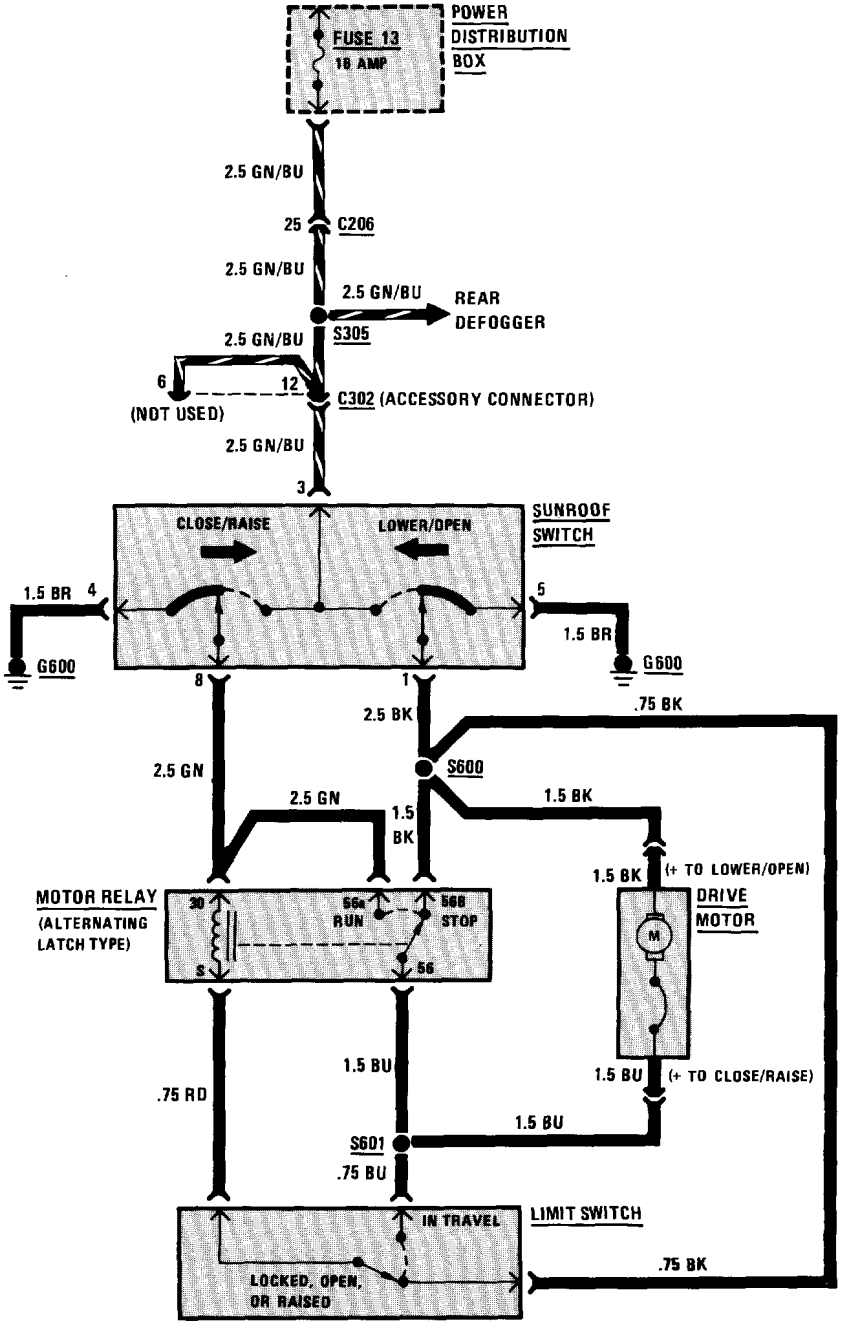
(For Component Locations See Page 206)

HOT IN ACCY, RUN OR START



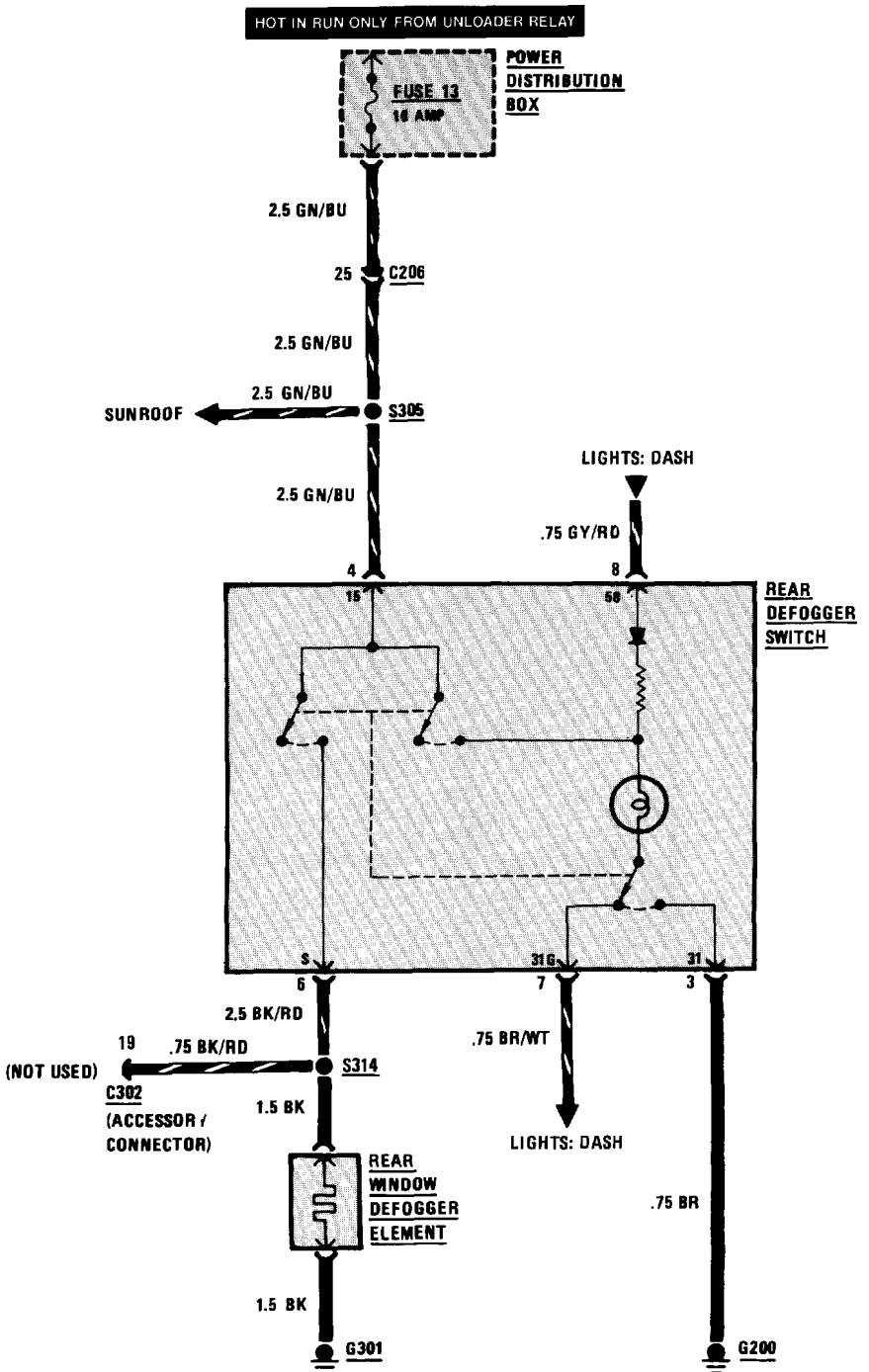
(For Component Locations See Page 206)

HOT IN RUN ONLY FROM UNLOADER RELAY



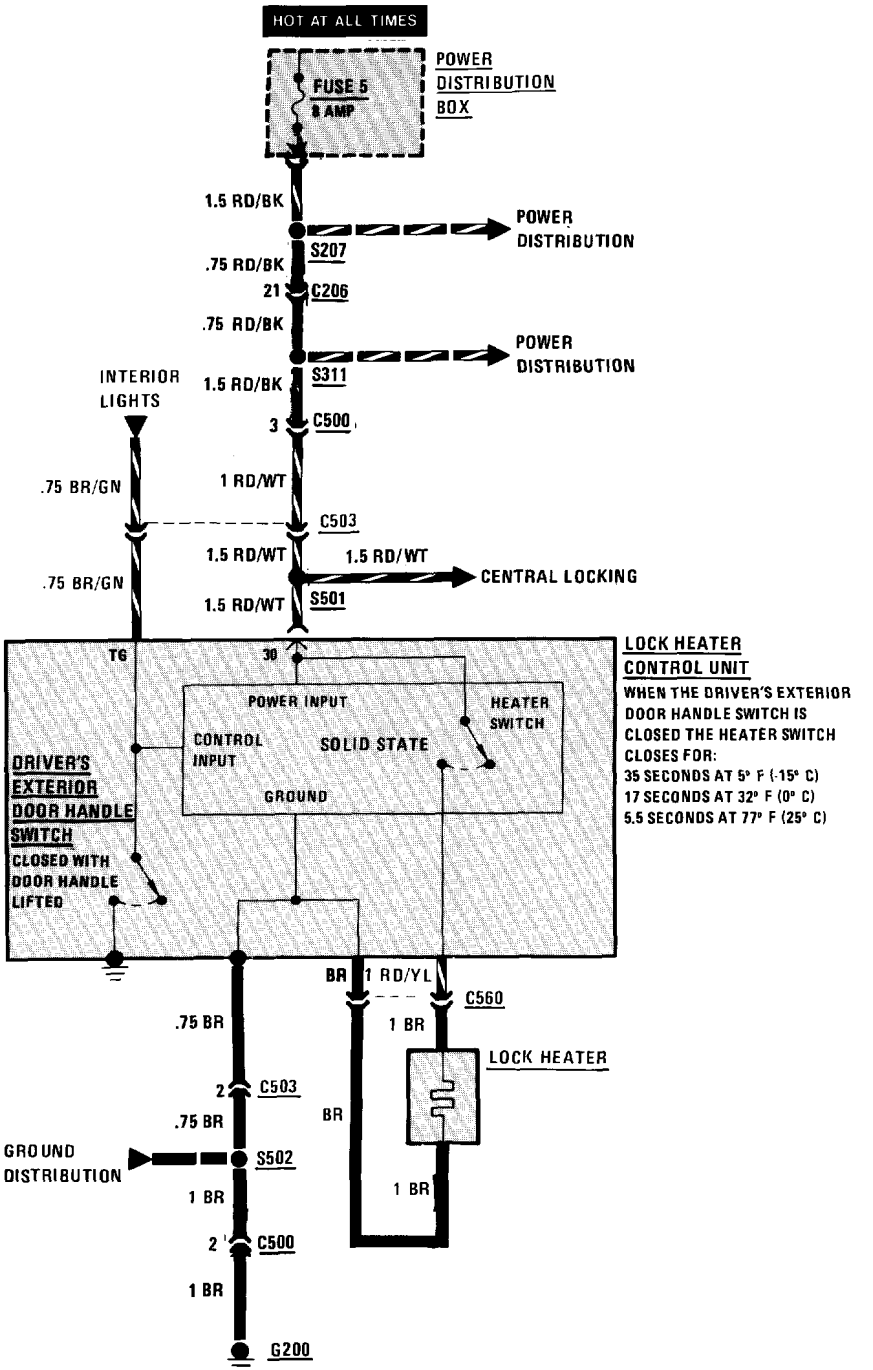
REAR DEFOGGER

(For Component Locations See Page 211)

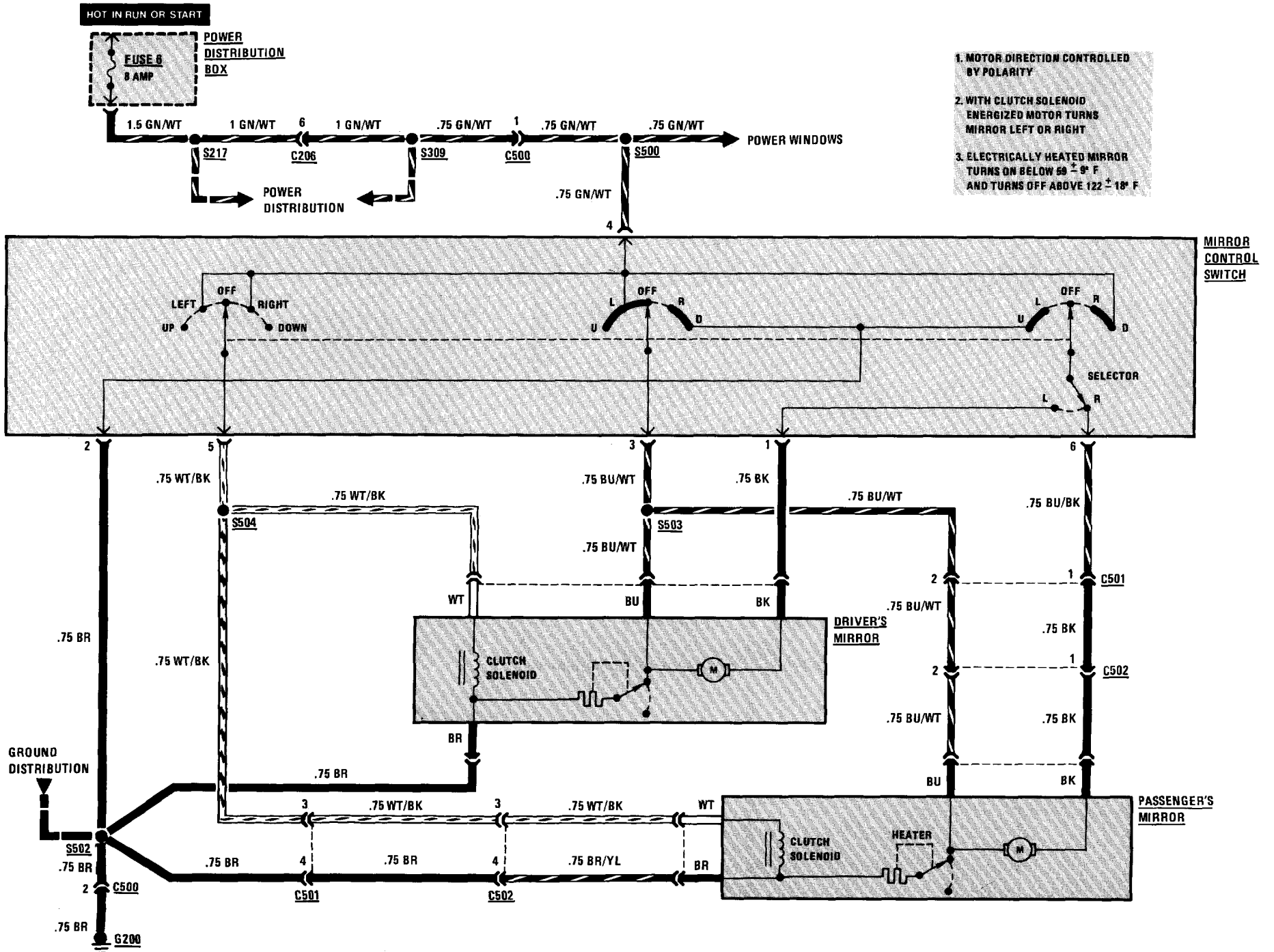


HEATED DOOR LOCK

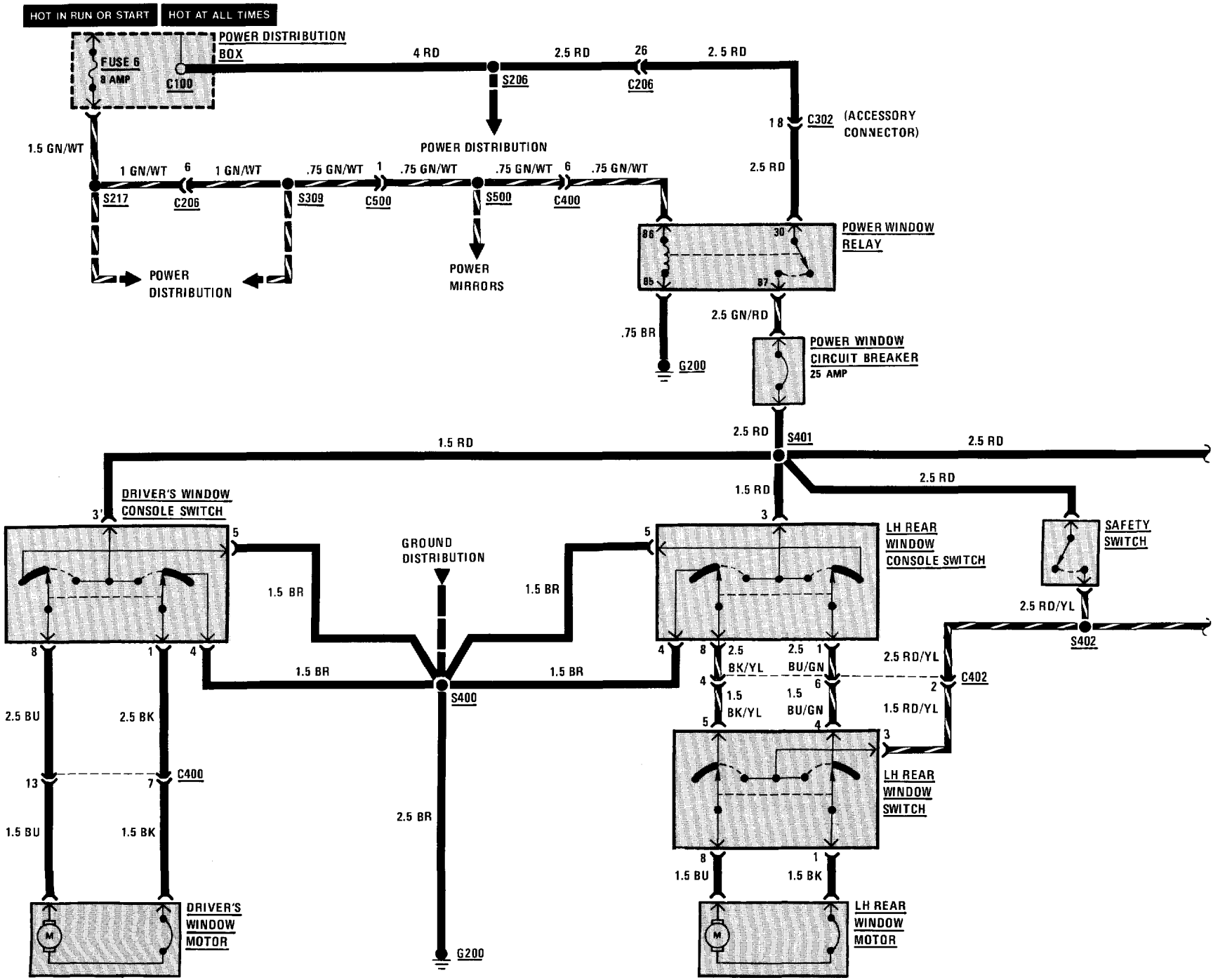
(For Component Locations See Page 211)



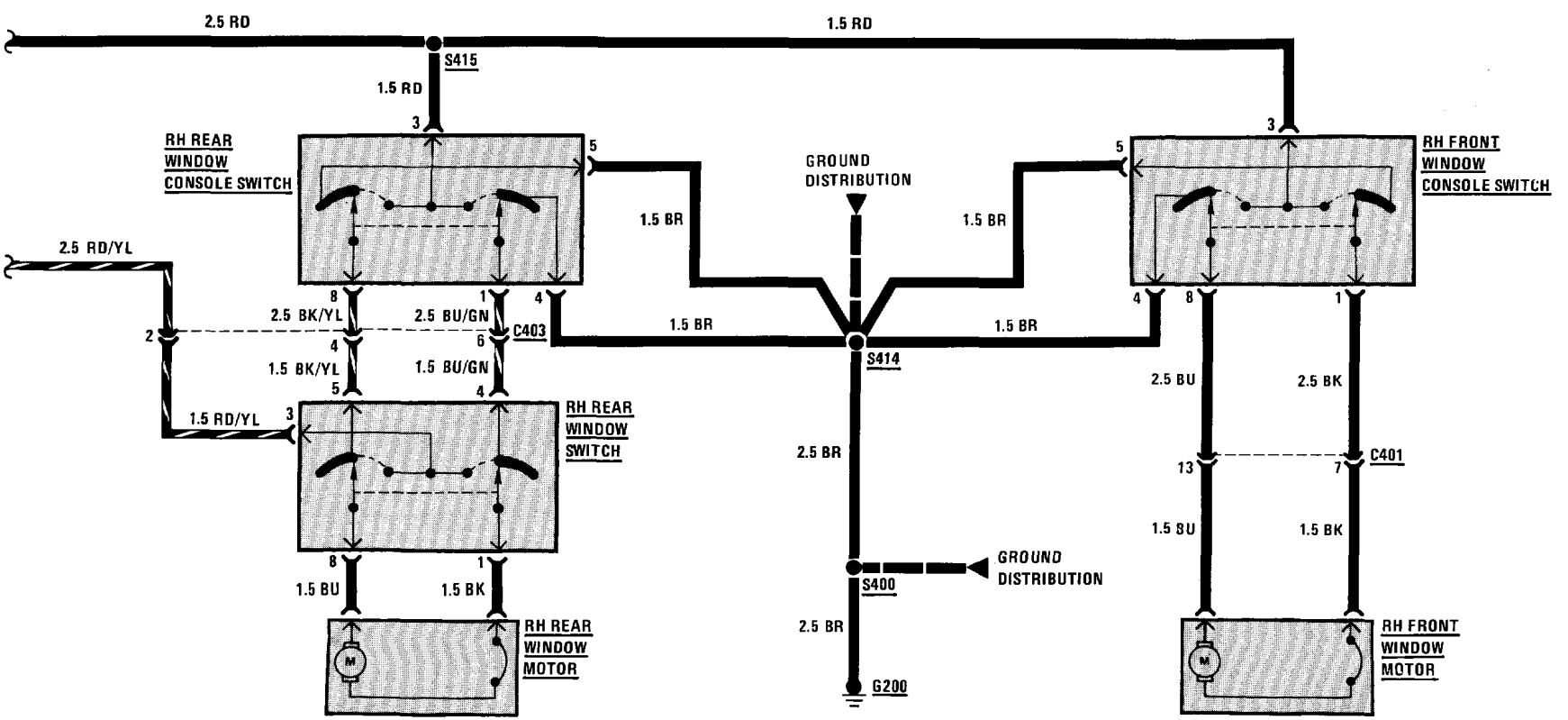
(For Component Locations See Page 210)



(For Component Locations See Page 210)

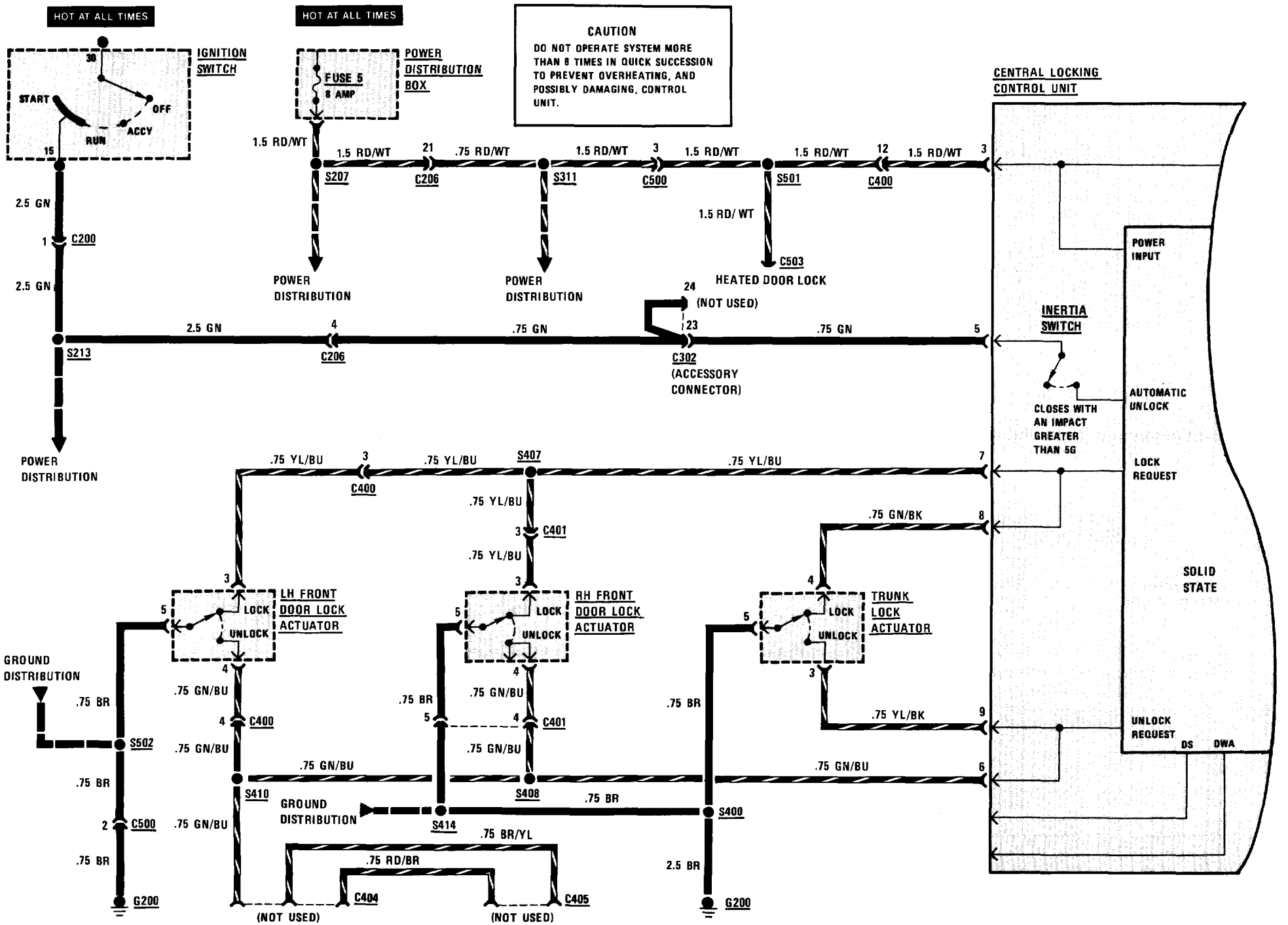


(For Component Locations See Page 210)

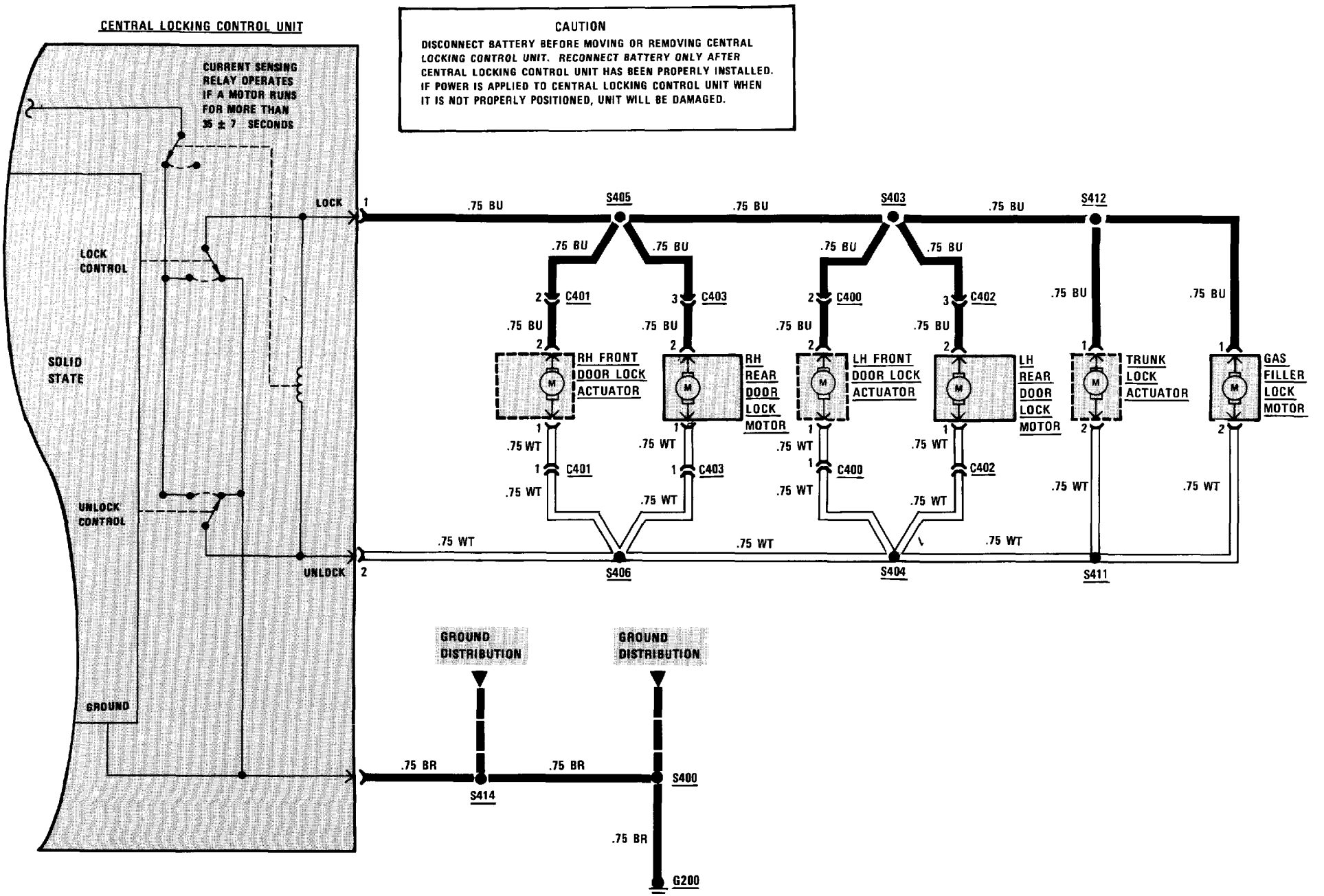


142 CENTRAL LOCKING (SELECT)

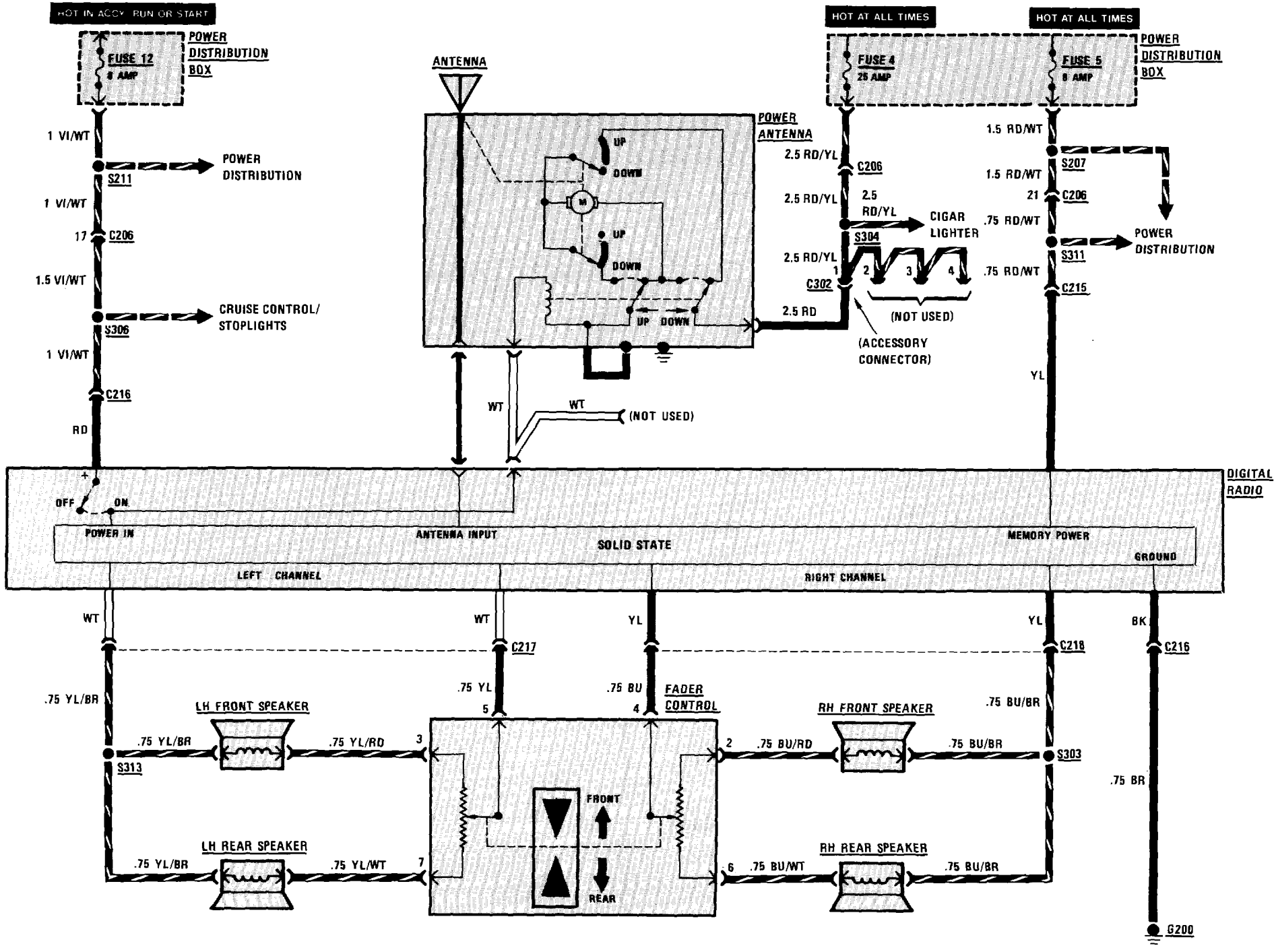
(For Component Locations See Page 202)



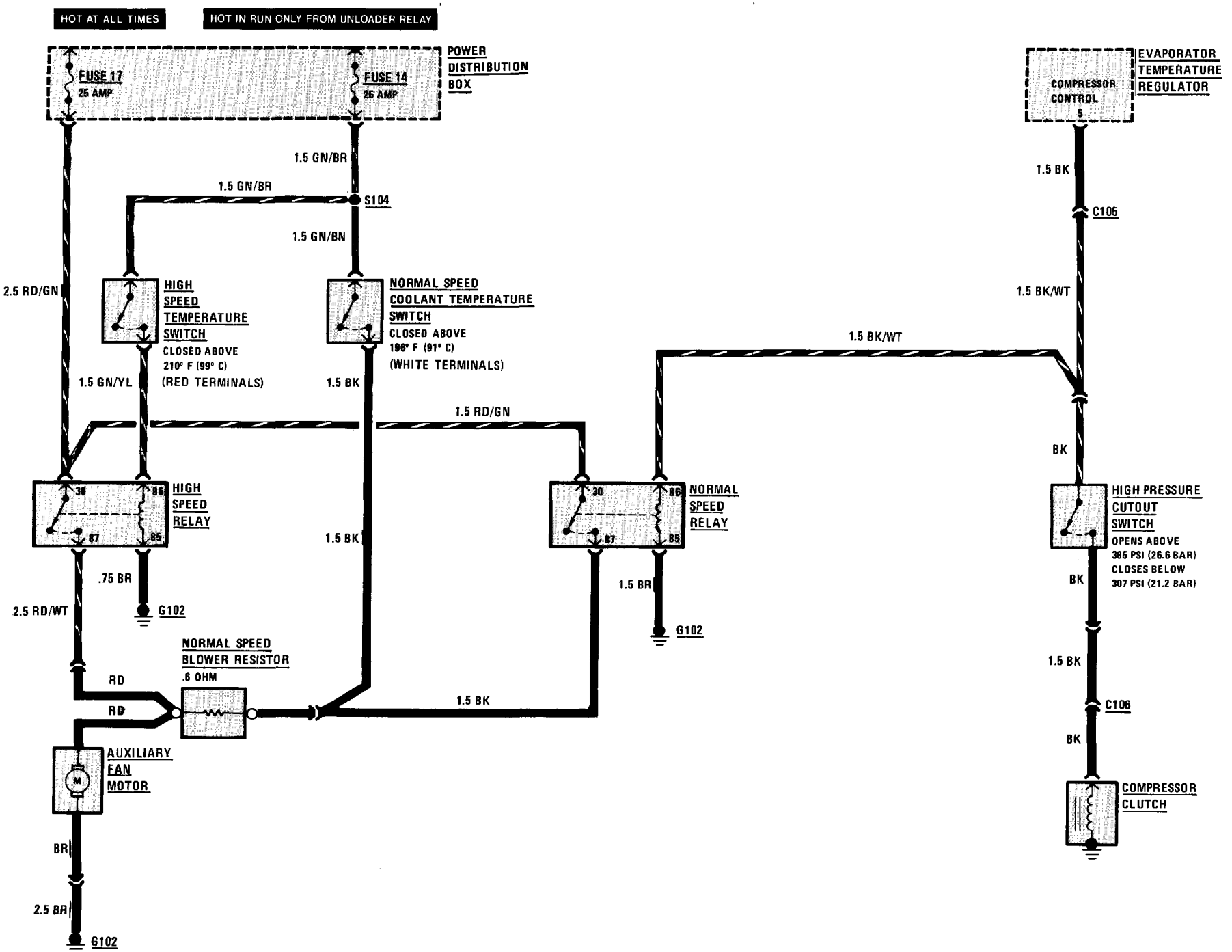
(For Component Locations See Page 202)



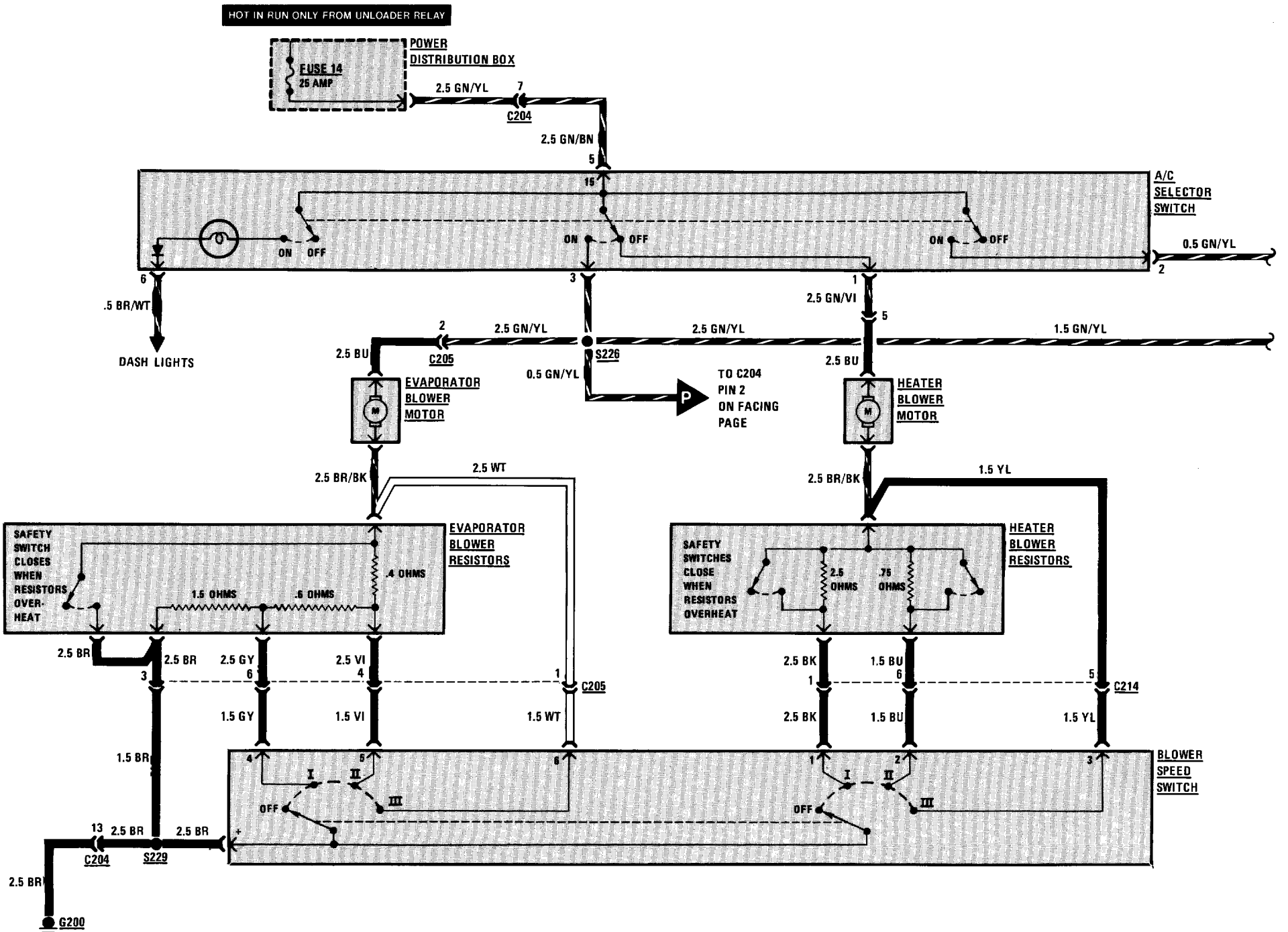
(For Component Locations See Page 211)



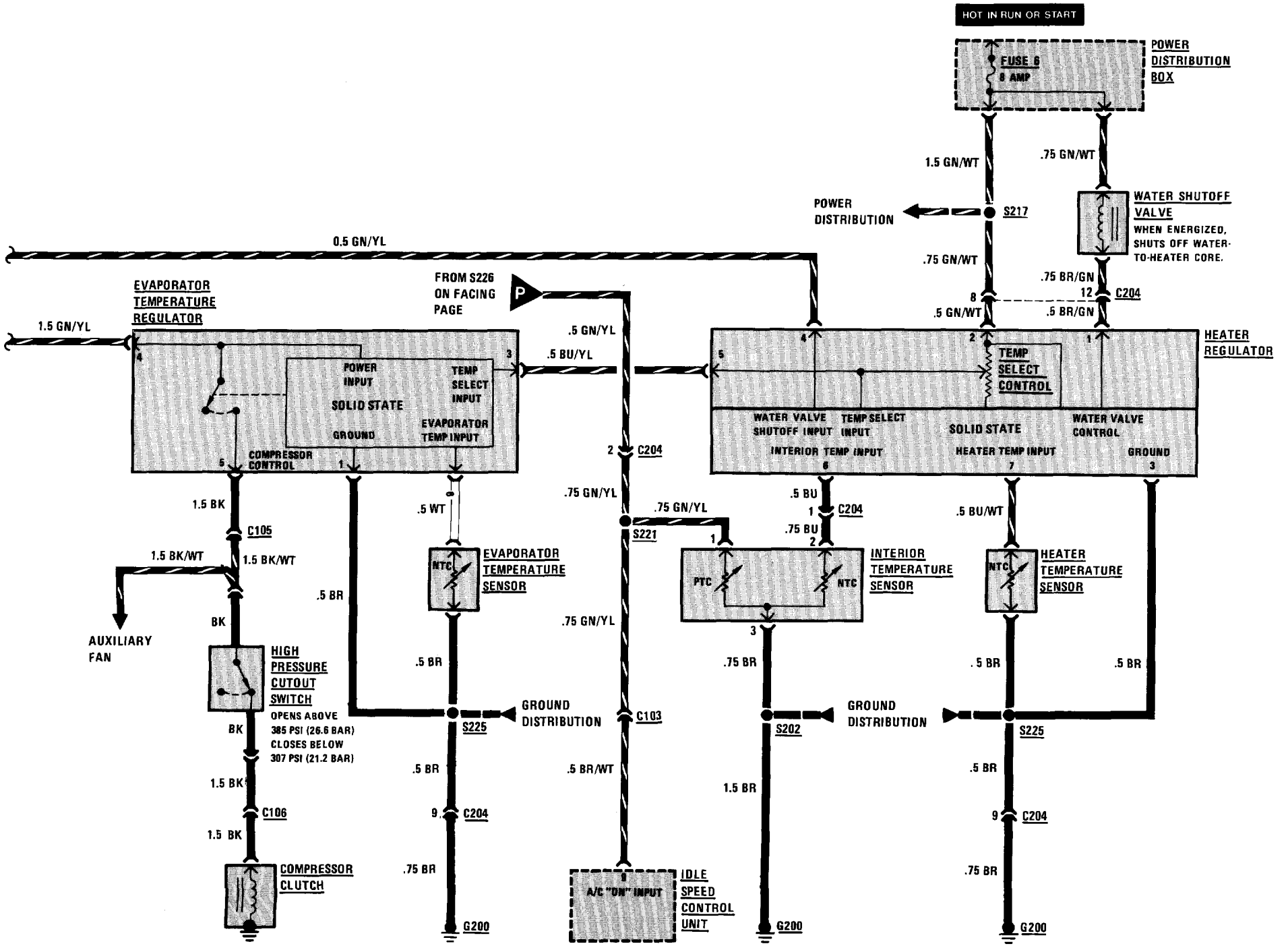
(For Component Locations See Page 201)



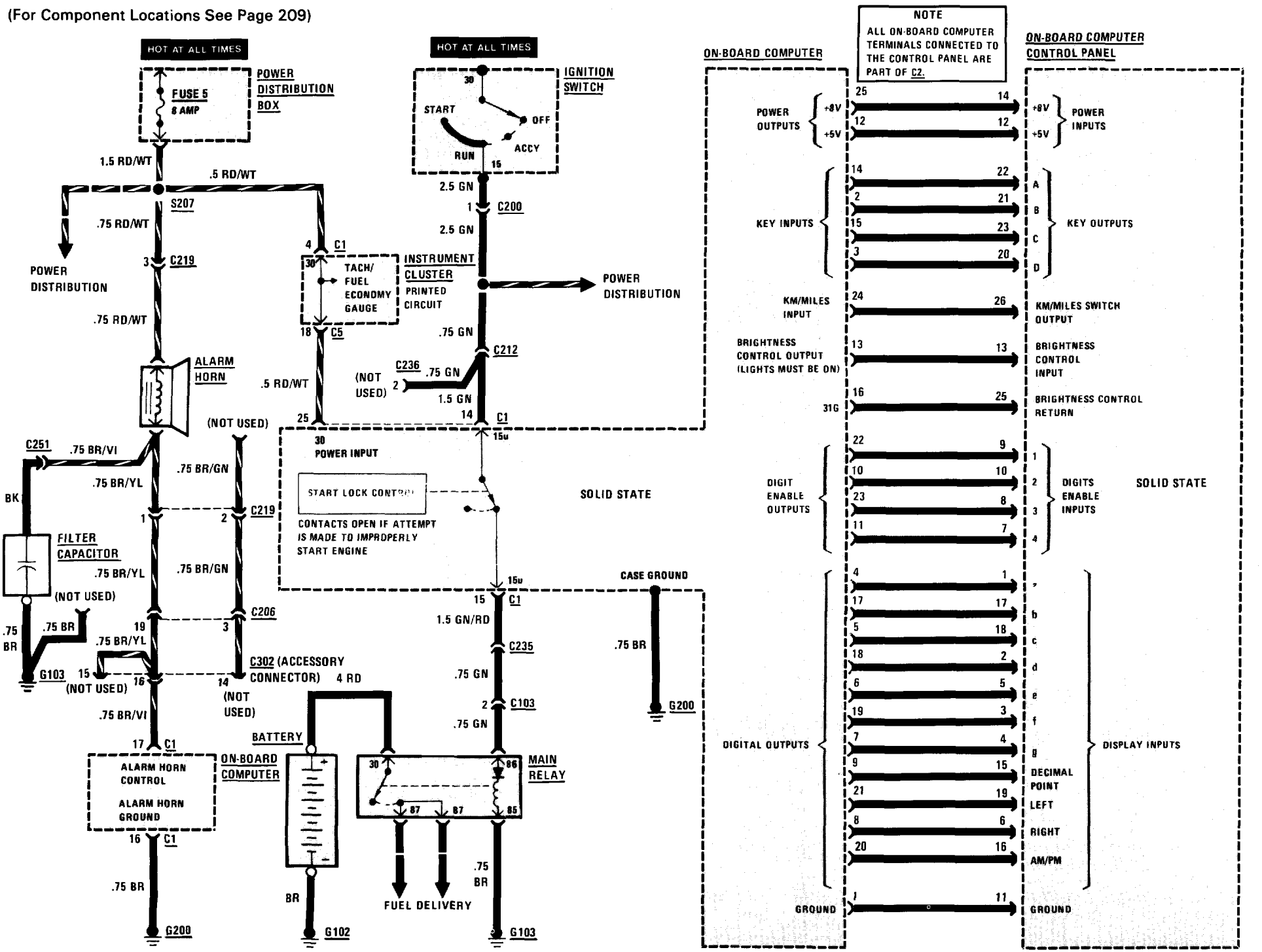
(For Component Locations See Page 205)



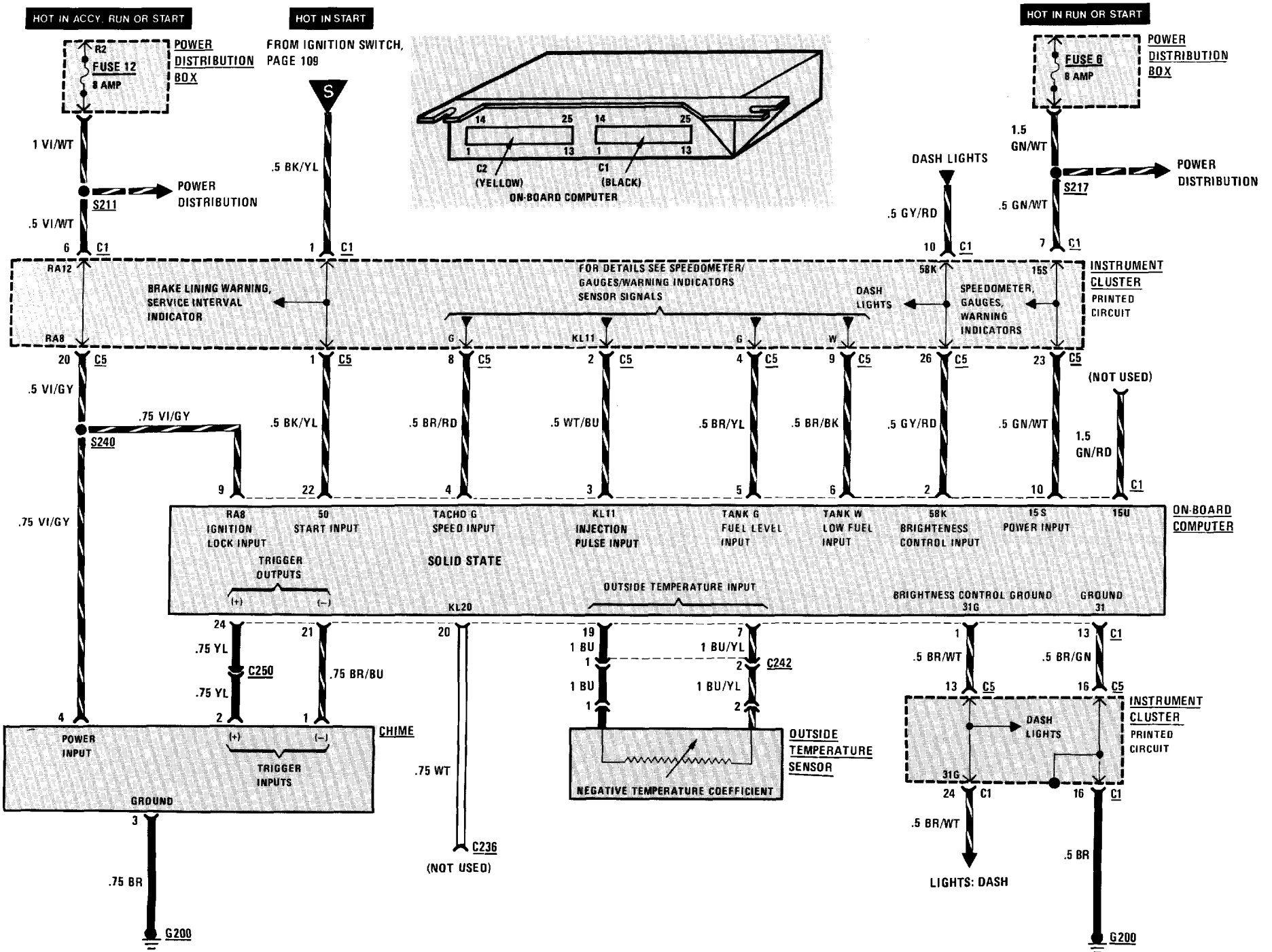
(For Component Locations See Page 205)



(For Component Locations See Page 209)

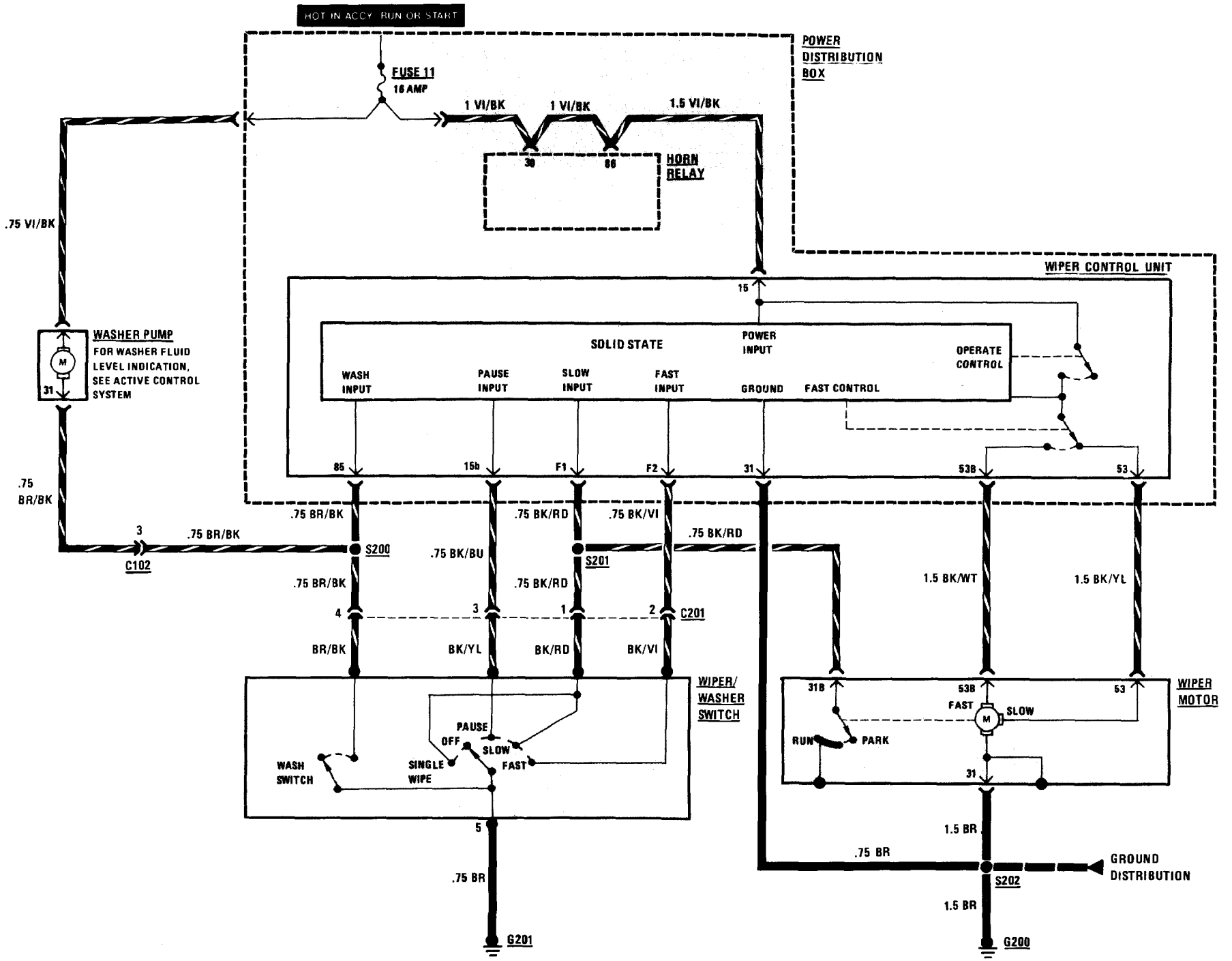


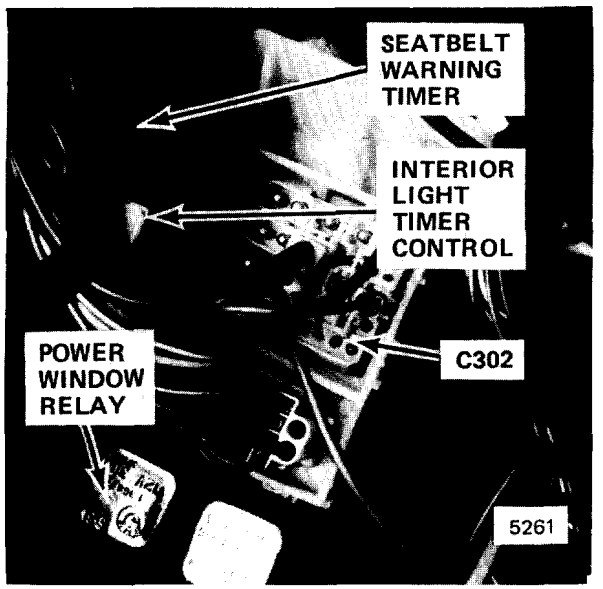
(For Component Locations See Page 209)

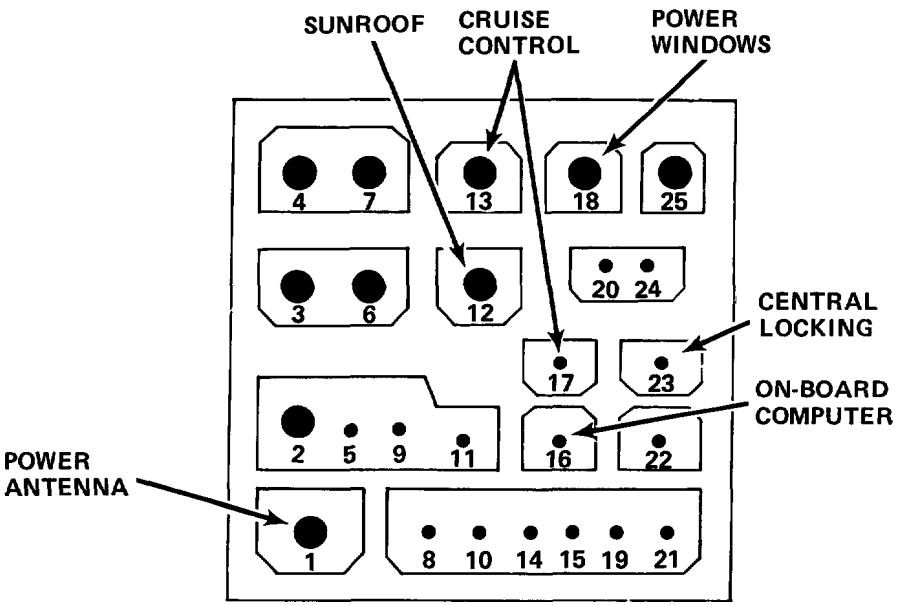


150 WIPER/WASHER

(For Component Locations See Page 217)



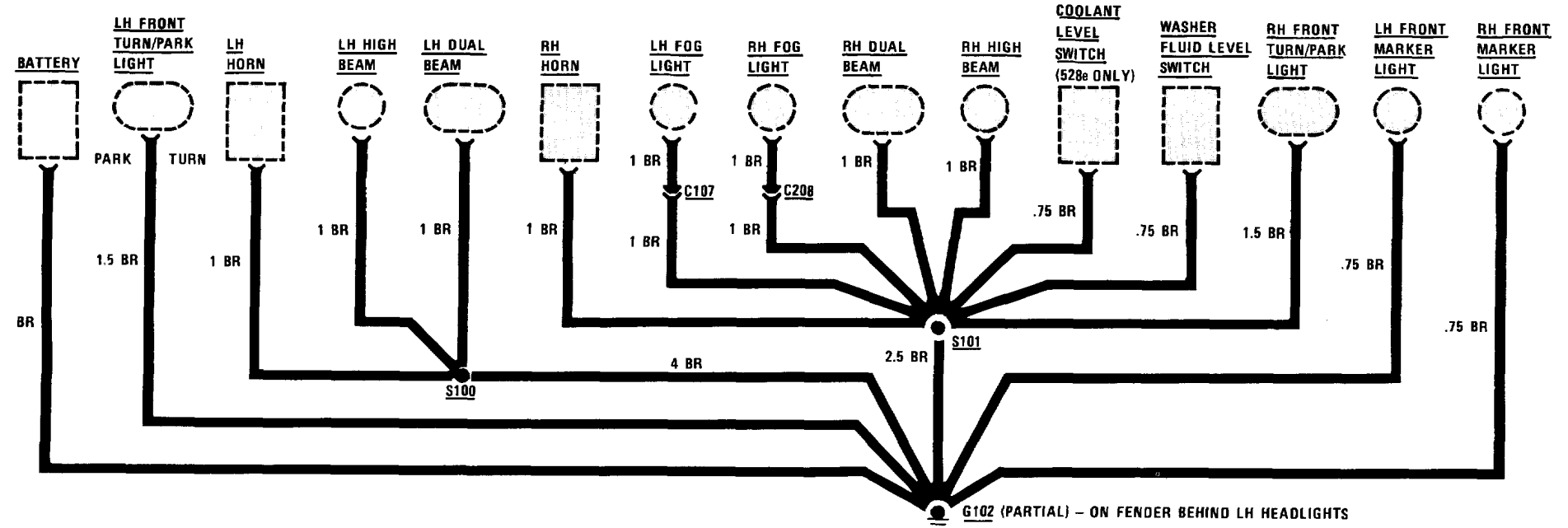


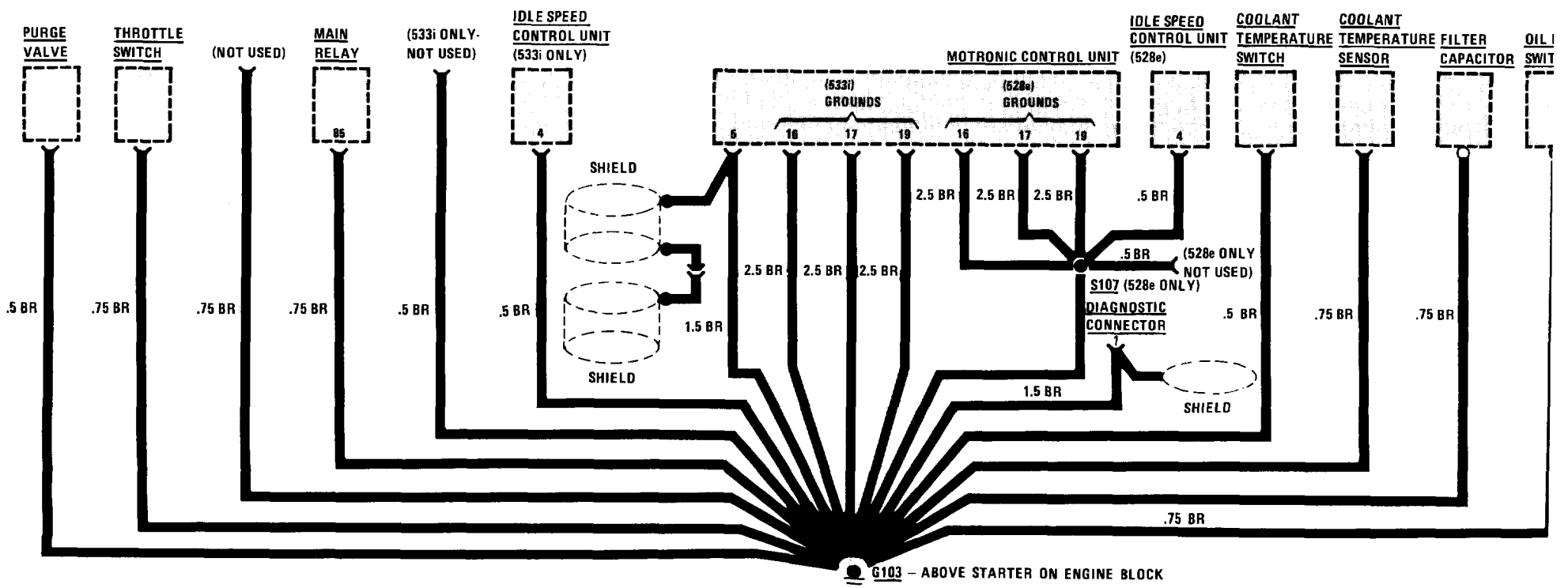


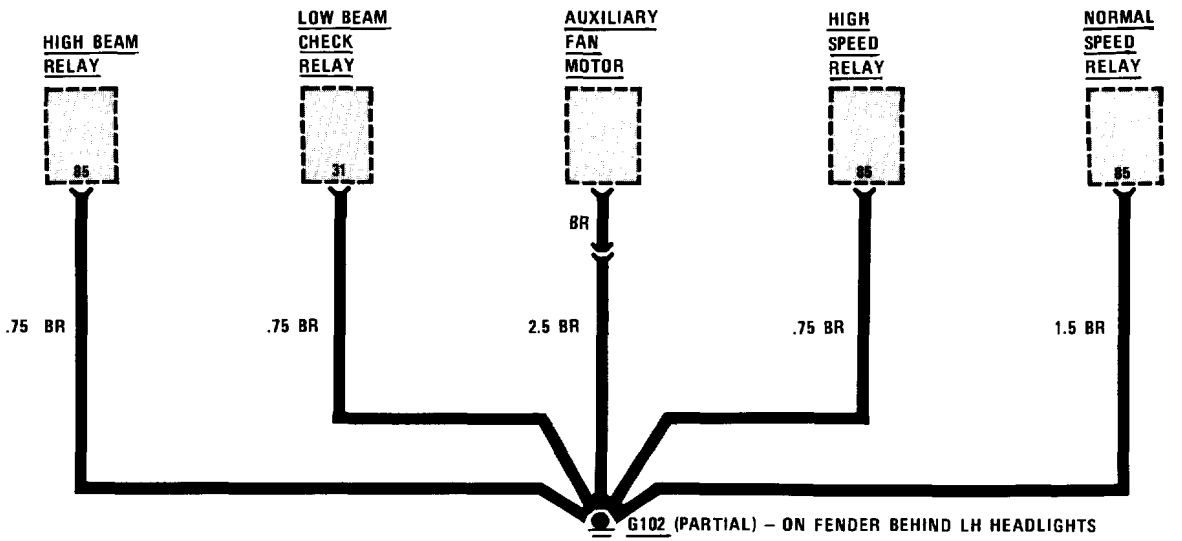
ACCESSORY CONNECTOR—C302
FRONT VIEW

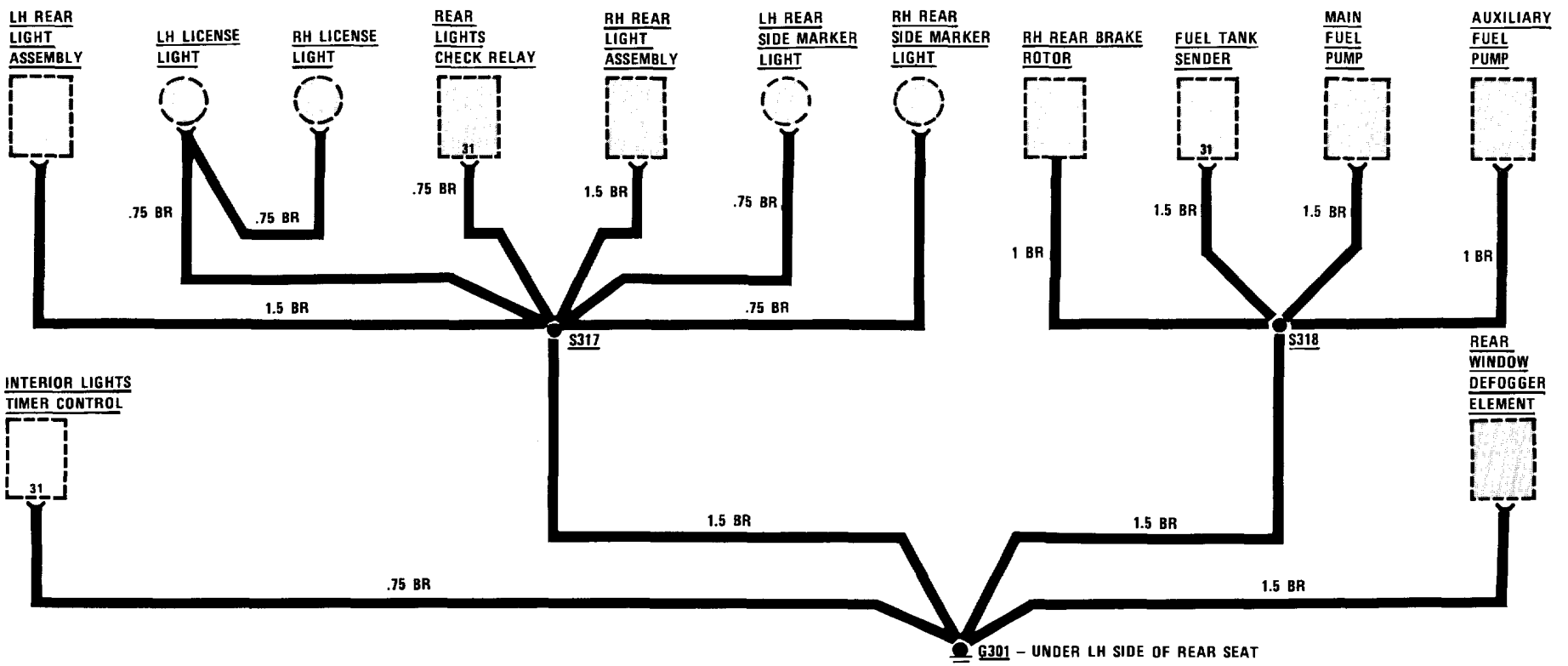
Figure 1 - Under Left Side Of Dash

152 GROUND DISTRIBUTION (G102, G103)

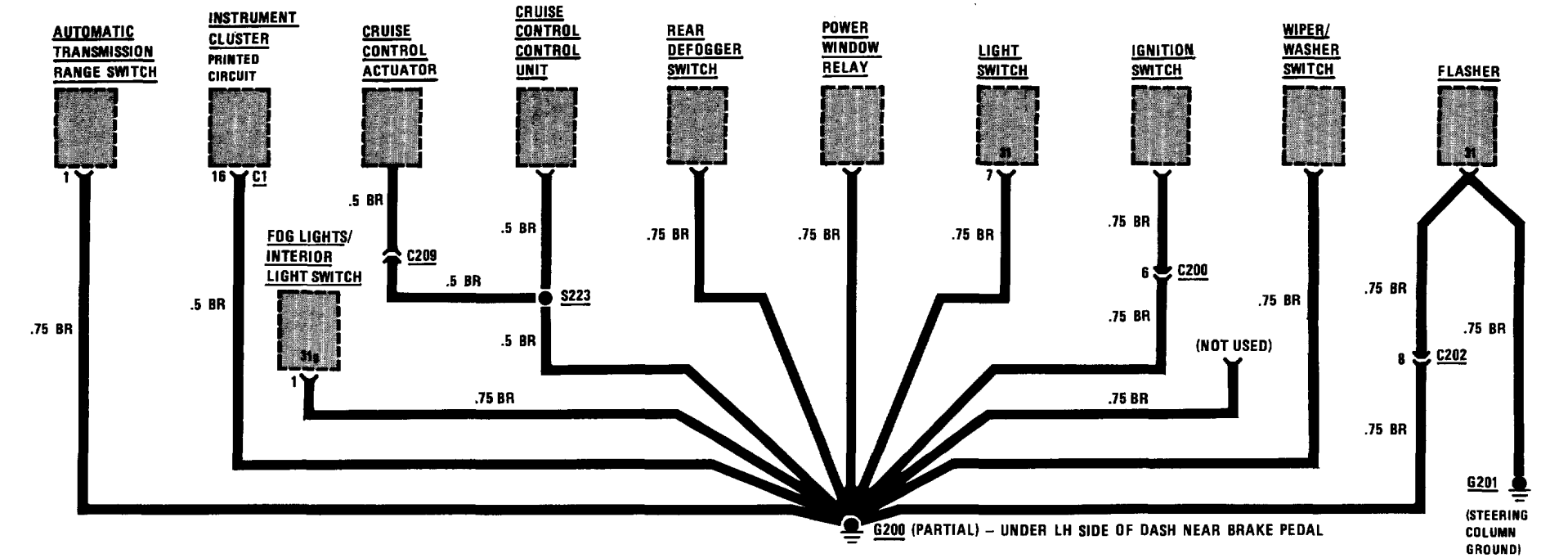


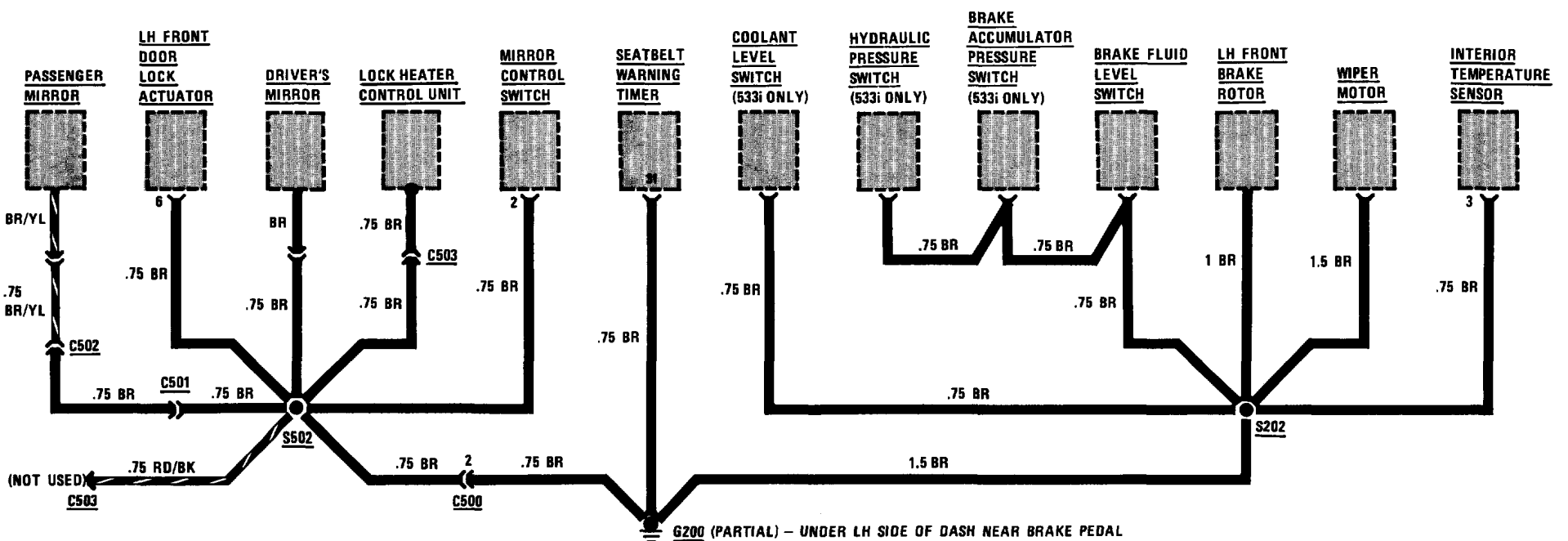


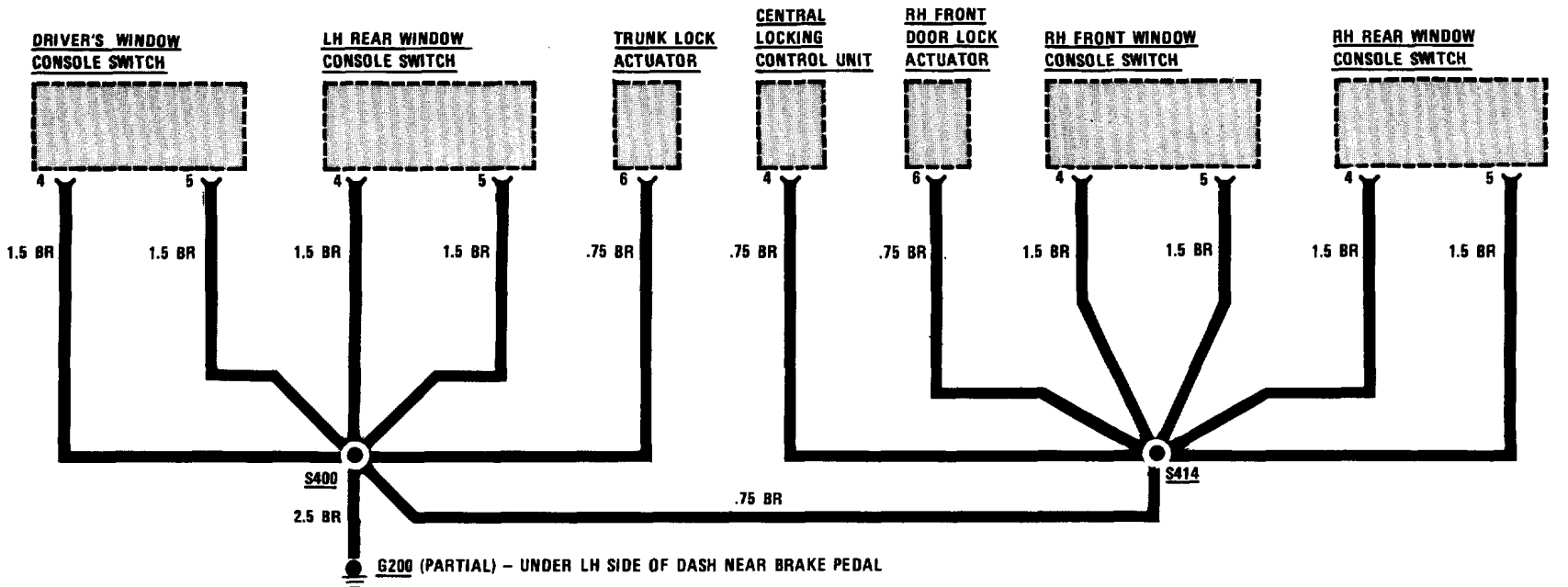

HIGH BEAM RELAY
85
LOW BEAM CHECK RELAY
31
AUXILIARY FAN MOTOR
HIGH SPEED RELAY
85
NORMAL SPEED RELAY
85
BR
.75 BR
.75 BR
2.5 BR
.75 BR
1.5 BR
G102 (PARTIAL) – ON FENDER BEHIND LH HEADLIGHTS

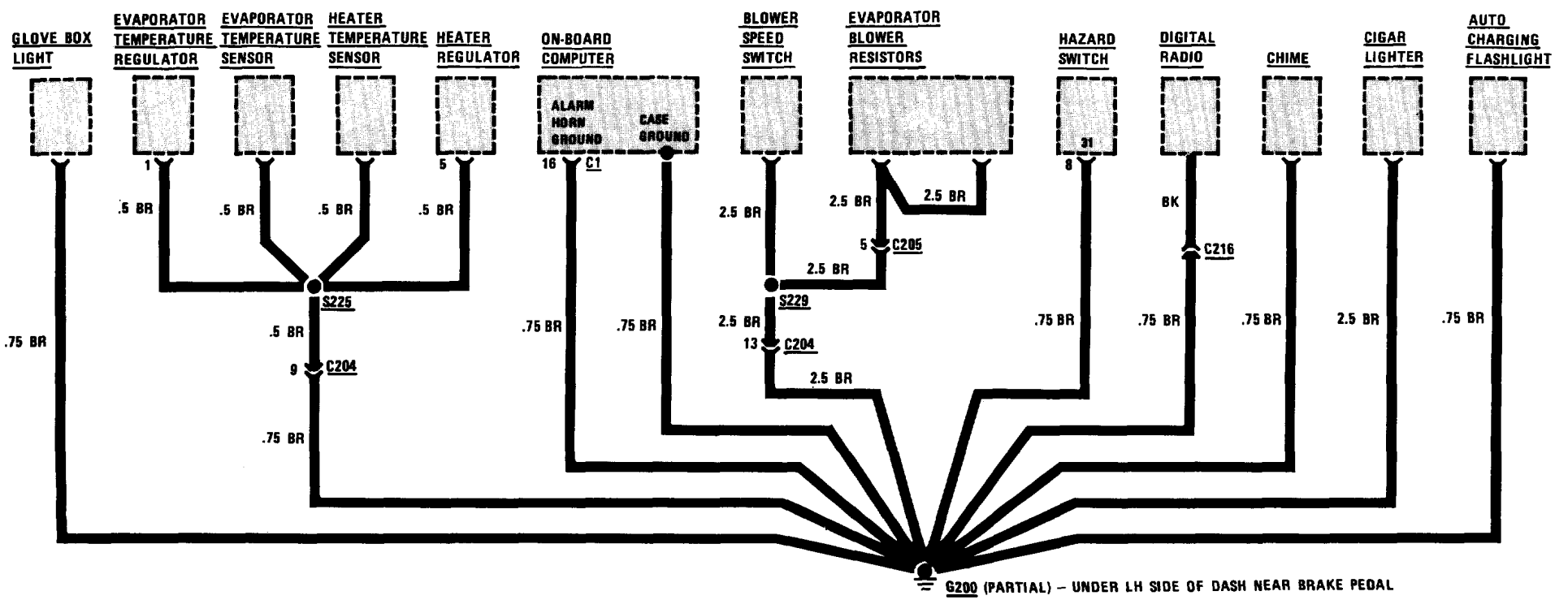

LH REAR LIGHT ASSEMBLY
LH LICENSE LIGHT
RH LICENSE LIGHT
REAR LIGHTS CHECK RELAY
31
RH REAR LIGHT ASSEMBLY
LH REAR SIDE MARKER LIGHT
RH REAR SIDE MARKER LIGHT
RH REAR BRAKE ROTOR
FUEL TANK SENDER
31
MAIN FUEL PUMP
AUXILIARY FUEL PUMP
.75 BR
.75 BR
.75 BR
1.5 BR
.75 BR
1 BR
1.5 BR
1.5 BR
1 BR
1.5 BR
.75 BR
S317
S318
INTERIOR LIGHTS TIMER CONTROL
31
REAR WINDOW DEFOGGER ELEMENT
1.5 BR
1.5 BR
.75 BR
1.5 BR
G301 – UNDER LH SIDE OF REAR SEAT

154 GROUND DISTRIBUTION (G200)






DRIVER'S WINDOW CONSOLE SWITCH
LH REAR WINDOW CONSOLE SWITCH
TRUNK LOCK ACTUATOR
CENTRAL LOCKING CONTROL UNIT
RH FRONT DOOR LOCK ACTUATOR
RH FRONT WINDOW CONSOLE SWITCH
RH REAR WINDOW CONSOLE SWITCH
4
5
4
5
6
4
6
4
5
4
5
1.5 BR
1.5 BR
1.5 BR
1.5 BR
.75 BR
.75 BR
.75 BR
1.5 BR
1.5 BR
1.5 BR
1.5 BR
S400
S414
.75 BR
2.5 BR
G200 (PARTIAL) – UNDER LH SIDE OF DASH NEAR BRAKE PEDAL


GLOVE BOX LIGHT
EVAPORATOR TEMPERATURE REGULATOR
EVAPORATOR TEMPERATURE SENSOR
HEATER TEMPERATURE SENSOR
HEATER REGULATOR
ON-BOARD COMPUTER
BLOWER SPEED SWITCH
EVAPORATOR BLOWER RESISTORS
HAZARD SWITCH
DIGITAL RADIO
CHIME
CIGAR LIGHTER
AUTO CHARGING FLASHLIGHT
ALARM HORN GROUND
CASE GROUND
1
5
16
C1
31
8
.5 BR
.5 BR
.5 BR
.5 BR
2.5 BR
2.5 BR
2.5 BR
BK
5
C205
C216
2.5 BR
S225
S229
.75 BR
.5 BR
.75 BR
.75 BR
2.5 BR
.75 BR
.75 BR
.75 BR
2.5 BR
.75 BR
9
C204
13
C204
.75 BR
2.5 BR
G200 (PARTIAL) – UNDER LH SIDE OF DASH NEAR BRAKE PEDAL

ACTIVE CHECK CONTROL

Active Check Control Unit	Above rear view mirror	119-1
Brake Switch	Above brake pedal	213-2
Coolant Level Switch (528 e)	On RH front wheel well, in coolant reservoir	212-3
Coolant Level Switch (533 i)	On LH front wheel well, in coolant reservoir	212-6
Low Beam Check Relay	Attached to power distribution box	102-1
Oil Level Sensor	Bottom of engine oil pan	210-2
Power Distribution Box	On LH front wheel well	102-1
Rear Lights Check Relay	Mounted on trunk lock support	201-1
Seatbelt Warning Timer	Under LH side of dash	212-1
Washer Fluid Level Switch	In reservoir, behind RH headlights	211-1
C101 (17 pin) (528 e)	In power distribution box	205-1
C101 (17 pin) (533 i)	In power distribution box	215-2
C102 (7 pin)	In power distribution box	205-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
G102 (Main Body Ground)	On fender well behind LH headlights	203-1
G103 (Engine Ground) (533 i)	Top rear of engine	202-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	
G301 (Rear Interior Ground)	Under LH side of rear seat	208-1

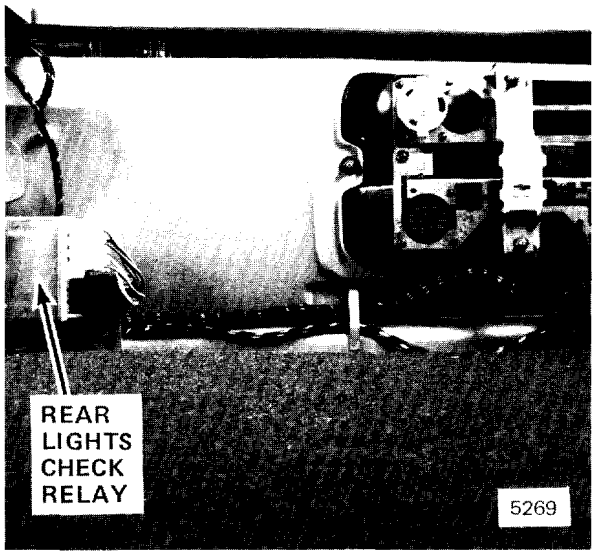


Figure 1 - Rear LH Side Of Trunk

AUXILIARY FAN

Auxiliary Fan Motor	Forward of radiator	214-3
Evaporator Temp. Regulator	On LH side of heater/evaporator housing	214-5
High Pressure Cut-Out Switch	On receiver-drier behind RH headlights	207-1
High Speed Cool. Temp. Switch	On upper LH side of radiator (red terminals)	214-2
High Speed Relay	Attached to power distribution box	102-1
Normal Speed Blower Resistor	Ahead of radiator, on auxiliary fan shield	214-3
Normal Speed Cool. Temp. Switch	On upper LH side of radiator (white terminals)	214-2
Normal Speed Relay	Attached to power distribution box	102-1
Power Distribution Box	On LH front wheel well	102-1
C105 (1 pin) (528 e)	At RH wheel well, below coolant reservoir	212-3
C105 (1 pin) (533 i)	At RH wheel well, below coolant reservoir	
C106 (1 pin) (528 e)	Near air conditioning compressor	214-4
C106 (1 pin) (533 i)	Near air conditioning compressor	
G102 (Main Body Ground)	On fender well behind LH headlights	203-1

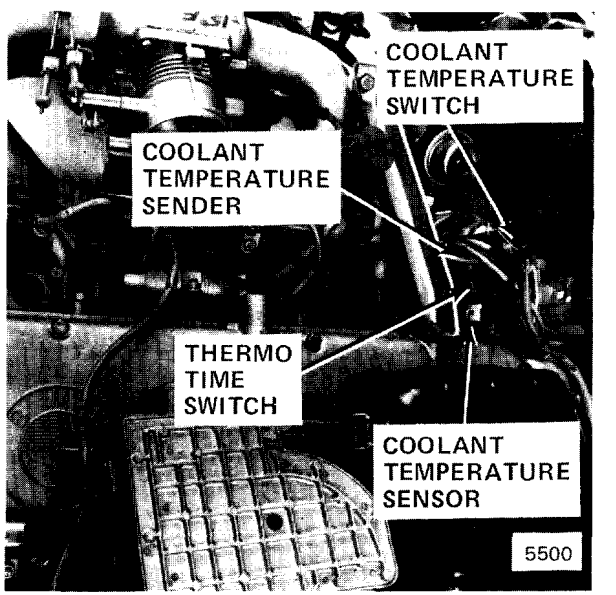


Figure 2 - Top Front Of 533i Engine

BACKUP LIGHTS

Auto. Trans. Range Switch	At base of shift lever	215-5
Backup Light Switch	On LH side of transmission	
Power Distribution Box	On LH front wheel well	102-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C301 (2 pin)	In center console, ahead of shift lever	
G301 (Rear Interior Ground)	Under LH side of rear seat	208-1

BRAKE LINING WARNING

Active Check Control Unit	Above rear view mirror	119-1
Ignition Key Switch	In upper portion steering column	
Power Distribution Box	On LH front wheel well	102-1
Seatbelt Switch	In driver's seatbelt buckle	
Seatbelt Warning Timer	Under LH side of dash	212-1
Warning Buzzer	In upper part of steering column	207-2
C200 (10 pin)	On LH side of steering column	203-2
C203 (2 pin)	At upper end of steering column	208-2
C206 (29 pin)	On connector bracket under LH side of dash	206-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

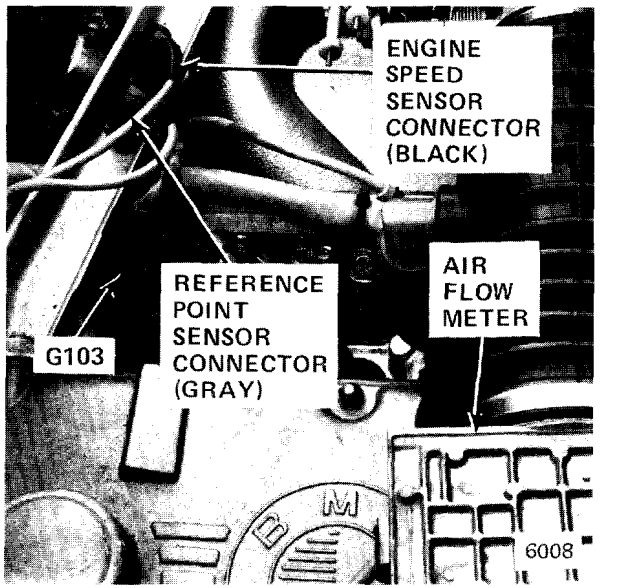


Figure 1 - Top Retail Of 533i Engine

CENTRAL LOCKING

Central Locking Control Unit	Above right front speaker	
Gas Filler Lock Motor	In trunk, right of power antenna	
Ignition Switch	Upper part of steering column	
LH Front Door Lock Actuator	In LH front door	
LH Rear Door Lock Motor	In LH rear door	
Power Distribution Box	On LH front wheel well	102-1
RH Front Door Lock Actuator	In RH front door	
RH Rear Door Lock Motor	In RH rear door	
Trunk Lock Actuator	In rear panel of trunk	
C200 (10 pin)	On LH side of steering column	203-2
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C302 (accessory connector)	Under LH side of dash	212-1
C400 (13 pin)	Behind RH front speaker	
C401 (13 pin)	Behind RH front speaker	213-3
C402 (6 pin)	At LH rear door grommet	
C403 (6 pin)	At RH rear door grommet	
C404 (4 pin)	In bottom rear of driver's door	202-2
C405 (2 pin)	In trunk near trunk lock	
C500 (6 pin)	Behind LH front speaker	
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

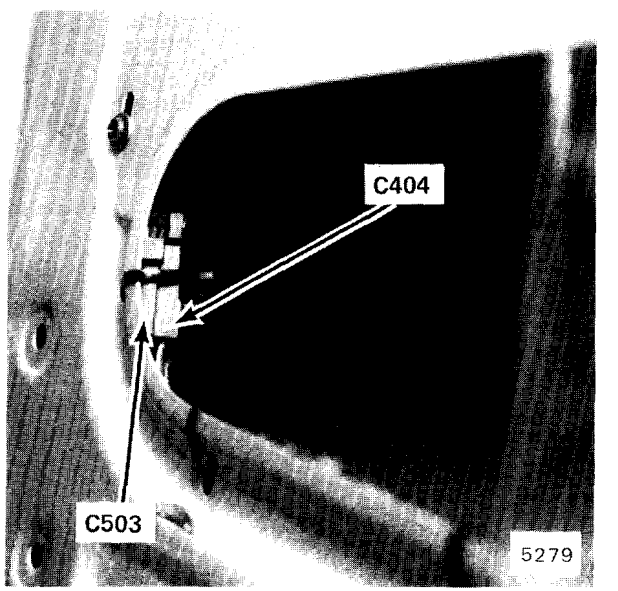


Figure 2 - Inside Driver's Door

CHARGING SYSTEM

Diagnostic Connector (528 e)	LH side of engine	104-1
Diagnostic Connector (533 i)	Top front of engine	104-1
Ignition Switch	Upper part of steering column.	
Power Distribution Box	On LH front wheel well	102-1
Starter	Lower rear LH side of engine	
C101 (17 pin) (528 e)	In power distribution box	205-1
C101 (17 pin) (533 i)	In power distribution box	215-2
C200 (10 pin)	On LH side of steering column	203-2
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C302 (accessory connector)	Under LH side of dash	212-1
G102 (Main Body Ground)	On fender well behind LH headlights	203-1

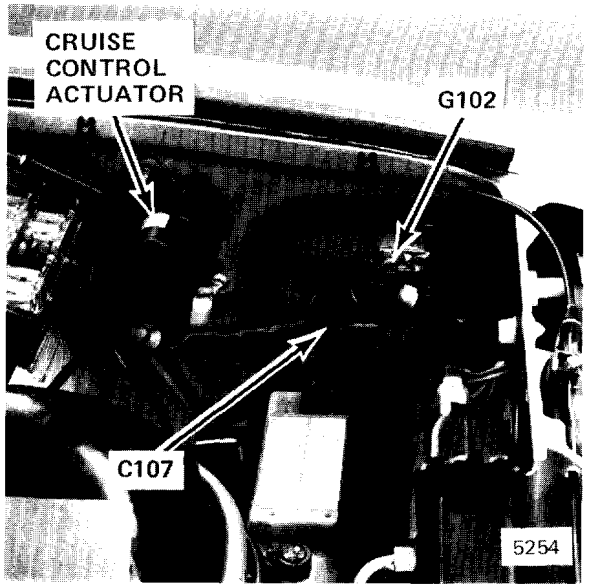


Figure 1 - Above Battery

CIGAR LIGHTER/GLOVE BOX LIGHT/ AUTO-CHARGING FLASHLIGHT

Auto-Charging Flashlight	In glove box	
Power Distribution Box	On LH front wheel well	102-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C302 (accessory connector)	Under LH side of dash	212-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

CRUISE CONTROL/STOP LIGHTS

Active Check Control Unit	Above rear view mirror	119-1
Auto. Trans. Range Switch	At base of shift lever	215-5
Brake Switch	Above brake pedal	213-2
Clutch Switch	Above clutch pedal	
Cruise Control Actuator (528 e)	Forward of power distribution box	203-1
Cruise Control Actuator (533 i)	Forward of power distribution box	215-2
Cruise Control Control Unit	Mounted on left under dash cover	203-2
Cruise Control Switch	On RH side of steering column	209-1
Power Distribution Box	On LH front wheel well	102-1
Rear Lights Check Relay	Mounted on trunk lock support	201-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C208 (2 pin)	Near clutch pedal	206-1
C209 (7 pin)	Near cruise control control unit	203-2
C210 (4 pin)	On LH side of steering column	203-2
C301 (2 pin)	In center console, ahead of shift lever	
C302 (accessory connector)	Under LH side of dash	212-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	
G301 (Rear Interior Ground)	Under LH side of rear seat	208-1

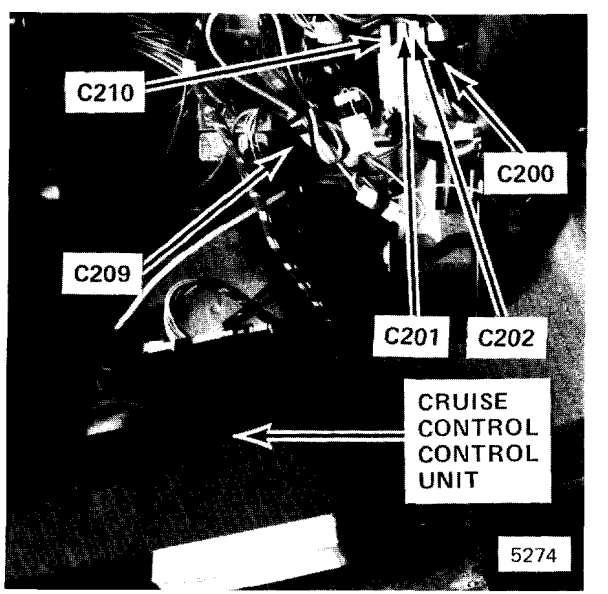


Figure 2 - Lower LH Side Of Dash

FUEL CONTROL

Air Flow Meter (528 e)	LH side of engine	212-2
Air Flow Meter (533 i)	Top right side of engine	202-1
Idle Speed Control Unit	Under RH side of dash, above glove box	204-1
Motronic Control Unit	Above glove box	204-1
Oxygen Sensor (528 e)	In exhaust manifold at rear of engine	212-3
Oxygen Sensor (533 i)	Rear of engine, in exhaust manifold	
G103 (Engine Ground) (528 e)	Above starter on engine block	214-1
G103 (Engine Ground) (533 i)	Top rear of engine	202-1

FUEL DELIVERY/EVAPORATIVE CONTROL

Auxiliary Fuel Pump	In fuel tank, under trunk	213-5
Diagnostic Connector (528 e)	LH side of engine	104-1
Diagnostic Connector (533 i)	Top front of engine	104-1
Fuel Pump Relay	On power distribution box	102-1
Ignition Switch	Upper part of steering column	
Main Fuel Pump	Forward and right of differential housing	
Main Relay	On power distribution box	102-1
Motronic Control Unit	Above glove box	204-1
On-Board Computer	Mounted on left under dash cover	
Power Distribution Box	On LH front wheel well	102-1
Purge Valve Relay	On power distribution box	102-1
Purge Valve	Behind RH headlights	207-1
C101 (17 pin) (528 e)	In power distribution box	205-1
C101 (17 pin) (533 i)	In power distribution box	215-2
C103 (6 pin)	RH side of dash near Motronic control unit	204-1
C200 (10 pin)	On LH side of steering column	203-2
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C212 (1 pin)	Under LH side of dash taped to harness	
C235 (1 pin)	Under LH side of dash, near on-board computer	
C236 (2 pin)	Under LH side of dash, near on-board computer	
G102 (Main Body Ground)	On fender well behind LH headlights	203-1
G103 (Engine Ground) (528 i)	Above starter on engine block	214-1
G103 (Engine Ground) (533 i)	Top rear of engine	202-1
G301 (Rear Interior Ground)	Under LH side of rear seat	208-1

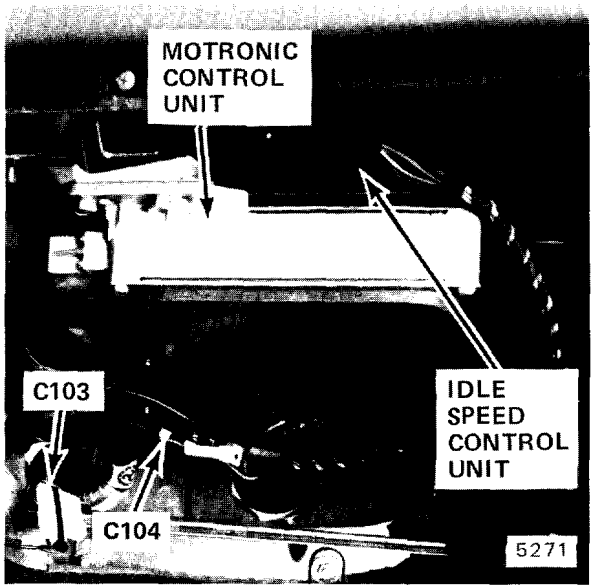


Figure 1 - Below RH Side Of Dash

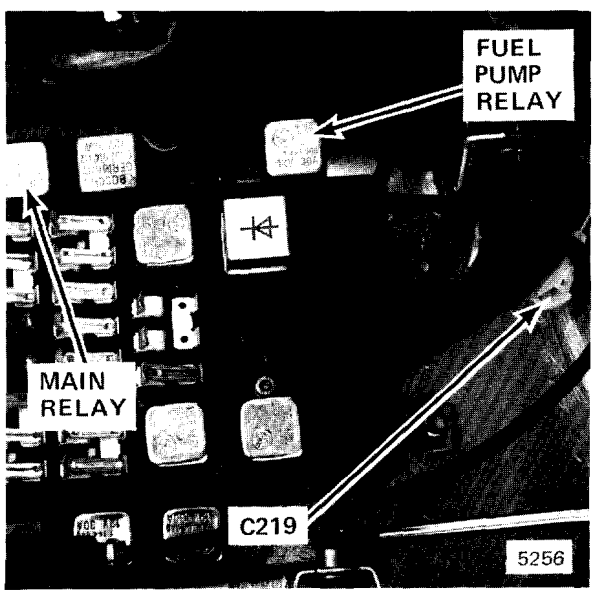


Figure 2 - Top Of LH Front Wheel Well

HEADLIGHTS (CONTROL/POWER)/FOG LIGHTS (CONTROL/POWER)

Active Check Control Unit	Above rear view mirror	119-1
Combination Switch	On LH side of steering column	209-1
Low Beam Check Relay	Attached to power distribution box	102-1
Power Distribution Box	On LH front wheel well	102-1
C102 (7 pin)	In power distribution box	205-1
C107 (2 pin)	Behind LH headlights	203-1
C108 (2 pin)	Behind RH headlights	211-1
C202 (13 pin)	On LH side of steering column	203-2
G102 (Main Body Ground)	On fender well behind LH headlights	203-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

HEATER/AIR CONDITIONING

Blower Speed Switch	In center console	214-6
Evaporator Blower Motor	Under center of dash	205-2
Evaporator Blower Resistors	On RH side of evaporator housing	205-2
Evaporator Temp. Regulator	On LH side of heater/evaporator housing	214-5
Evaporator Temp. Sensor	In evaporator, above evaporator blower motor	
Heater Blower Motor	Below windshield, behind cover panel	
Heater Blower Resistors	Below heater cover motor	
Heater Regulator	Behind A/C selector switch	210-1
Heater Temperature Sensor	LH side heater/evaporator, near heater core	214-5
High Pressure Cut-Out Switch	On receiver-drier behind RH headlights	207-1
Idle Speed Control Unit	Under RH side of dash, above glove box	204-1
Interior Temp. Sensor	Mounted in left under dash cover	213-2
Power Distribution Box	On LH front wheel well	102-1
Water Shutoff Valve (528 e)	Below brake master cylinder	
Water Shutoff Valve (533 i)	Center rear of engine compartment	215-3
C103 (6 pin)	RH side of dash near Motronic control unit	204-1
C105 (1 pin) (528 e)	At RH wheel well, below coolant reservoir	212-3
C105 (1 pin) (533 i)	At RH wheel well, below coolant reservoir	
C106 (1 pin) (528 e)	Near air conditioning compressor	214-4
C106 (1 pin) (533 i)	Near air conditioning compressor	
C204 (13 pin)	On LH side of heater/evaporator housing	214-5
C205 (6 pin)	On RH side of heater/evaporator housing	205-2
C214 (6 pin)	Behind center of dash, near heater blower	
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

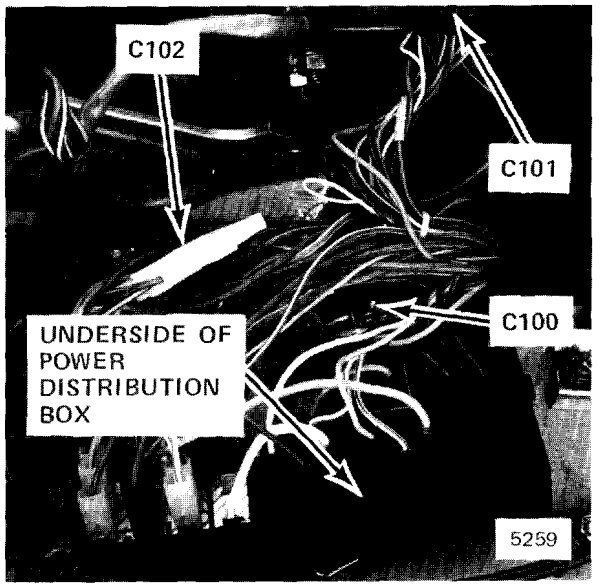


Figure 1 - Top Of LH Front Wheel Well

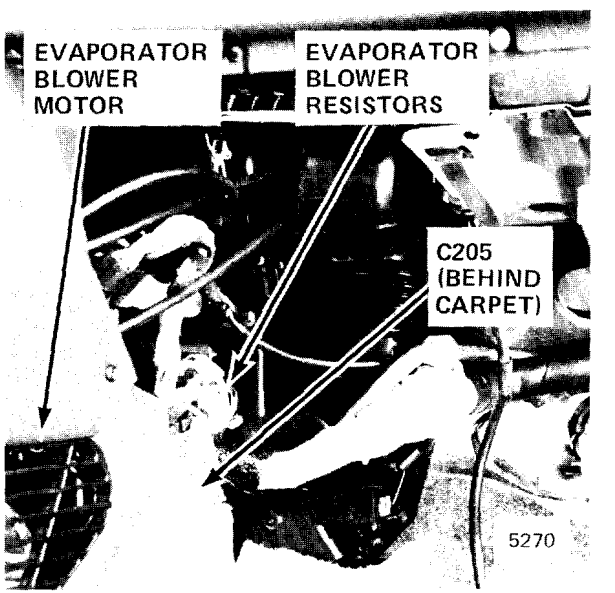


Figure 2 - RH Side Of Upper Console

HORN/SUNROOF

Horn Brush/Slip Ring	Below hub of steering wheel	207-2
Horn Switches	In each spoke on steering wheel	
Limit Switch	Behind header, above rear view mirror	
Motor Relay	Behind header, above rear view mirror	
Power Distribution Box	On LH front wheel well	102-1
Sunroof Drive Motor	Behind header, above rear view mirror	
Sunroof Switch	Above rear view mirror	
C200 (10 pin)	On LH side of steering column	203-2
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C302 (accessory connector)	Under LH side of dash	212-1
G102 (Main Body Ground)	On fender well behind LH headlights	203-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	
G600	Near sun roof switch	

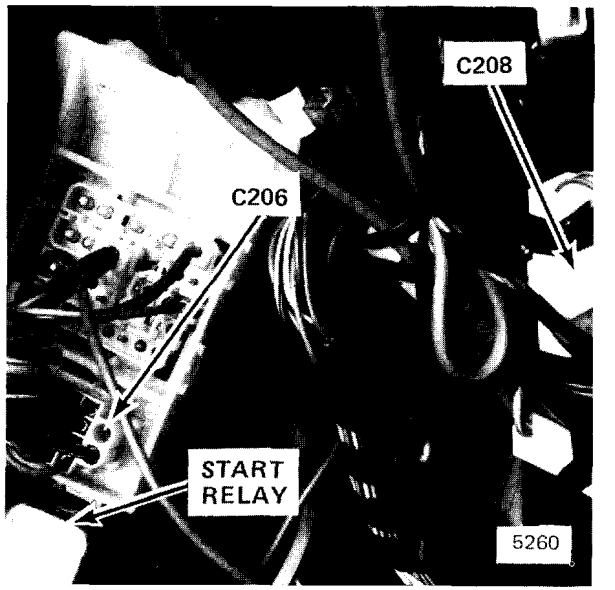


Figure 1 - Lower LH Side Of Dash

IDLE SPEED CONTROL

0°C Temperature Switch	On right inlet of heater blower housing	
Auto. Trans. Range Switch	At base of shift lever	215-5
Coolant Temp. Sensor (528 e)	*Front of engine, top of thermostat housing*	206-2
Coolant Temp. Sensor (533 i)	Front of engine, top of thermostat housing	201-2
Coolant Temp. Switch (528 e)	Front of engine, top of thermostat housing	211-2
Coolant Temp. Switch (533 i)	Front of engine, back of thermostat housing	201-2
Diagnostic Connector (528 e)	LH side of engine	104-1
Diagnostic Connector (533 i)	Top front of engine	104-1
Engine Speed Sensor (528 e)	On transmission bell housing	212-4
Engine Speed Sensor (533 i)	On transmission bell housing	202-1
Idle Control Valve (528 e)	Top rear RH side of engine	212-3
Idle Control Valve (533 i)	Top center of engine	213-1
Idle Speed Control Unit	Under RH side of dash, above glove box	204-1
Motronic Control Unit	Above glove box	204-1
Power Distribution Box	On LH front wheel well	102-1
Throttle Switch (528 e)	Top LH side of engine, below throttle body	212-5
Throttle Switch (533 i)	Top LH side of engine, below throttle body	213-1
C101 (17 pin) (528 e)	In power distribution box	205-1
C101 (17 pin) (533 i)	In power distribution box	215-2
C103 (6 pin)	RH side of dash near Motronic control unit	204-1
C104 (2 pin)	RH side of dash near Motronic control unit	204-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C301 (2 pin)	In center console, ahead of shift lever	
G103 (Engine Ground) (533 i)	Above starter on engine block	214-1
G103 (Engine Ground) (528 e)	Top rear of engine	202-1

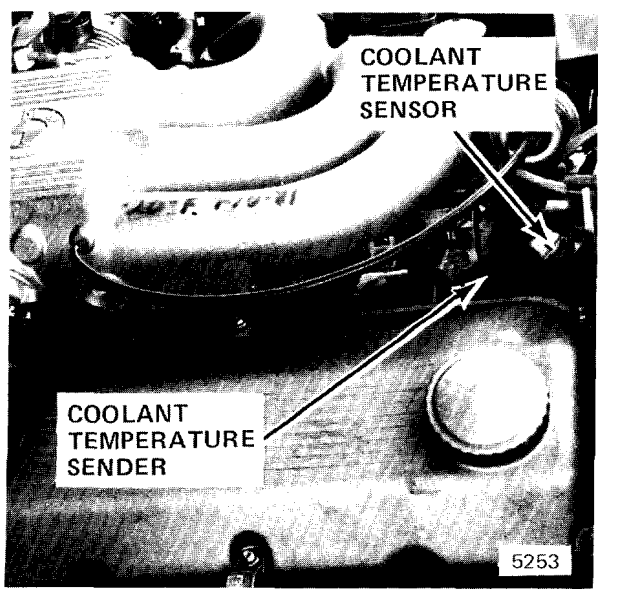


Figure 2 - Top RH Side Of 528e Engine

IGNITION

Diagnostic Connector (528 e)	LH side of engine	104-1
Diagnostic Connector (533 i)	Top front of engine	104-1
Ignition Coil	On fender well, behind RH headlights	207-1
Ignition Switch	Upper part of steering column	
Motronic Control Unit	Above glove box	204-1
Power Distribution Box	On LH front wheel well	102-1
Reference Point Sensor (528 e)	On transmission bell housing	212-4
Reference Point Sensor (533 i)	On transmission bell housing	202-1
TDC Sensor	Above crankshaft vibration damper	
C101 (17 pin) (528 e)	In power distribution box	205-1
C101 (17 pin) (533 i)	In power distribution box	215-2
C200 (10 pin)	On LH side of steering column	203-2
G103 (Engine Ground) (528 e)	Above starter on engine block	214-1
G103 (Engine Ground) (533 i)	Top rear of engine	202-1

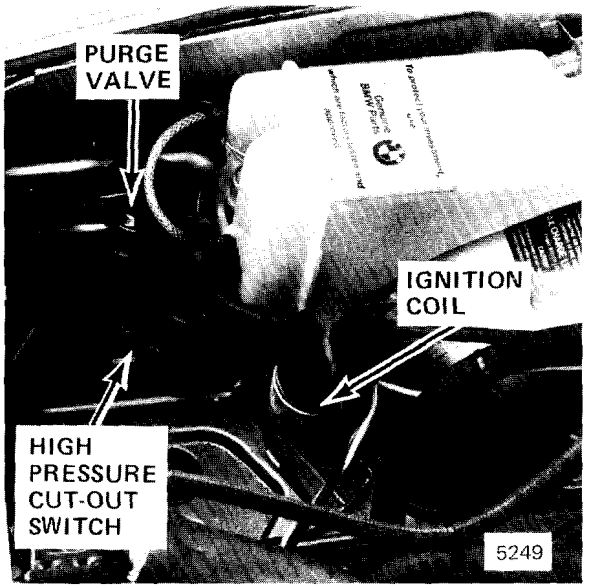


Figure 1 - Foward Of Washer Reservoir

IGNITION KEY WARNING/SEATBELT WARNING

Power Distribution Box	On LH front wheel well	102-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	
G301 (Rear Interior Ground)	Under LH side of rear seat	208-1

INTERIOR LIGHTS

Ignition Switch	Upper part of steering column	
Interior Light Timer Control	Under LH side of dash	212-1
Lock Heater Control Unit	In LH front door	213-4
Power Distribution Box	On LH front wheel well	102-1
C200 (10 pin)	On LH side of steering column	203-2
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C302 (accessory connector)	Under LH side of dash	212-1
C303 (2 pin)	In headliner, near LH dome light	
C500 (6 pin)	Behind LH front speaker	
C503 (8 pin)	In driver's door driver's door	202-2
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

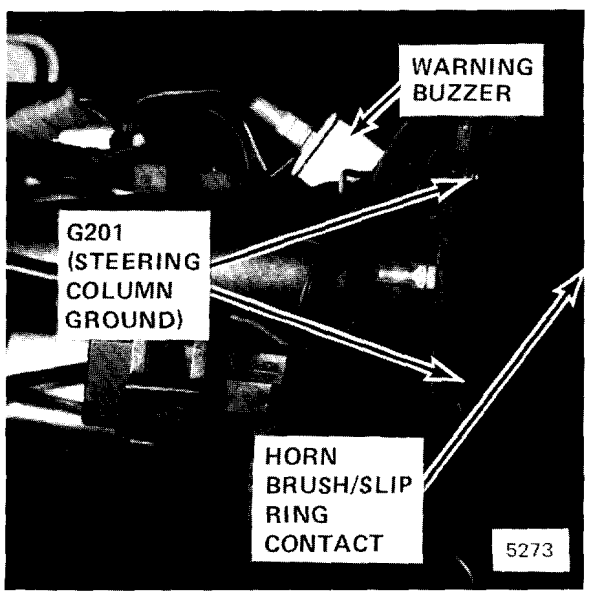


Figure 2 - Upper Part Of Steering Column

LIGHTS: DASH/TRANSMISSION RANGE

Auto. Trans. Range Switch	At base of shift lever	215-5
Fog Light Switch	Under LH side of instrument cluster	213-2
Hazard Switch	To right of instrument cluster	
Heater-A/C Panel Lights & LEDs	Behind heater-air conditioning control panel	
On-Board Computer	Mounted on left under dash cover	
Power Distribution Box	On LH front wheel well	102-1
C204 (13 pin)	On LH side of heater/evaporator housing	214-5
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C215 (2 pin)	Behind radio	
C301 (2 pin)	In center console, ahead of shift lever	
C302 (accessory connector)	Under LH side of dash	212-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

LIGHTS: FRONT PARK/FRONT MARKER/TAIL

Active Check Control Unit	Above rear view mirror	119-1
Power Distribution Box	On LH front wheel well	102-1
Rear Lights Check Relay	Mounted on trunk lock support	201-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
G102 (main body ground)	On fender well behind LH headlights	203-1
G301 (rear interior ground)	Under LH side of rear seat	208-1

LIGHTS: REAR MARKER/LICENSE/TRUNK

Active Check Control Unit	Above rear view mirror	119-1
Power Distribution Box	On LH front wheel well	102-1
Rear Lights Check Relay	Mounted on trunk lock support	201-1
Trunk Light Switch	In trunk lid near trunk lock	
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C300 (2 pin)	Near trunk light	
C302 (accessory connector)	Under LH side of dash	212-1
G301 (Rear Interior Ground)	Under LH side of rear seat	208-1

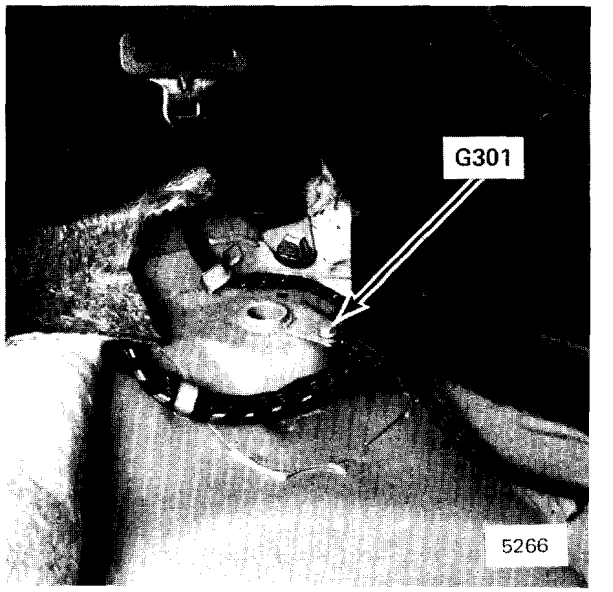


Figure 1 - Under LH Rear Seat

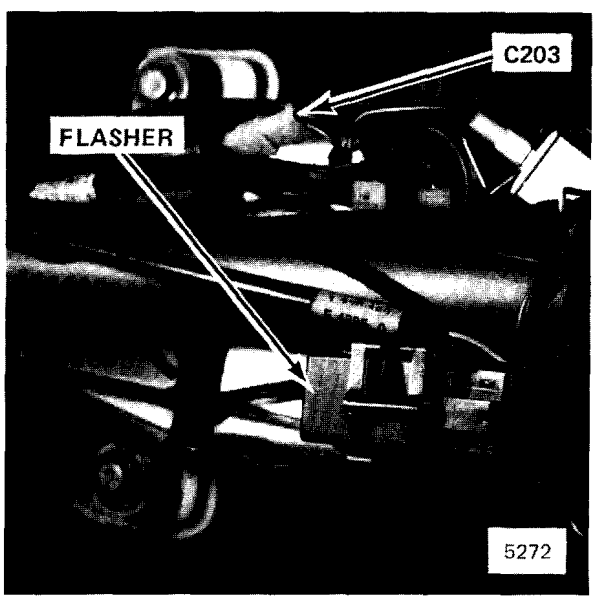


Figure 2 - Upper Part Of Steering Column

LIGHTS TURN/HAZARD WARNING

Combination Switch	On LH side of steering column	209-1
Flasher	Upper part of steering column	208-2
Hazard Switch	To right of instrument cluster	
Power Distribution Box	On LH front wheel well	102-1
C102 (7 pin)	In power distribution box	205-1
C202 (13 pin)	On LH side of steering column	203-2
C206 (29 pin)	On connector bracket under LH side of dash	206-1
G102 (Main Body Ground)	On fender well behind LH headlights	203-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	
G201 (Steering Column Ground)	Upper part of steering column	207-2
G301 (Rear Interior Ground)	Under LH side of rear seat	208-1

ON-BOARD COMPUTER

Alarm Horn	Behind battery	215-4
Chime	Mounted on left under dash cover	
Filter Capacitor	Behind battery	215-4
Ignition Switch	Upper part of steering column	
Main Relay	On power distribution box	102-1
On-Board Computer	Mounted on left under dash cover	
Outside Temp. Sensor	Under front bumper, left side	
Power Distribution Box	On LH front wheel well	102-1
C103 (6 pin)	RH side of dash near Motronic control unit	204-1
C200 (10 pin)	On LH side of steering column	203-2
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C212 (1 pin)	Under LH side of dash taped to harness	
C219 (3 pin)	Taped to harness, near power distribution box	204-2
C235 (1 pin)	Under LH side of dash, near on-board computer	
C236 (2 pin)	Under LH side of dash, near on-board computer	
C242 (2 pin)	Ahead of on-board computer	
C250 (1 pin)	Under left side of dash, near on-board computer	
C251 (1 pin)	Behind battery	215-4
C302 (accessory connector)	Under LH side of dash	212-1
G102 (Main Body Ground)	On fender well behind LH headlights	203-1
G103 (Engine Ground) (528 e)	Above starter on engine block	214-1
G103 (Engine Ground) (533 i)	Top rear of engine	202-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

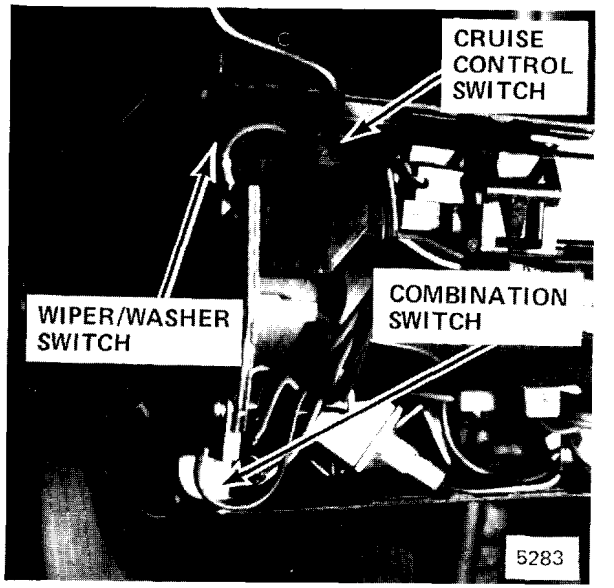


Figure 1- Upper Part Of Steering Column

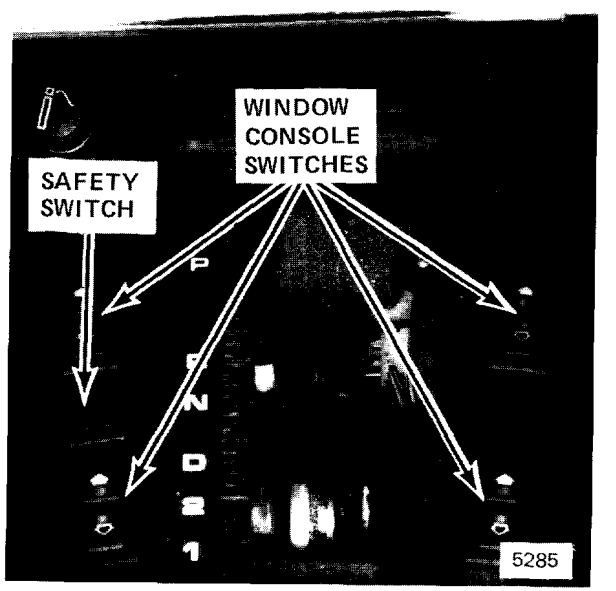


Figure 2 - Shift Console Near Shift Lever

POWER DISTRIBUTION

Combination Switch	On LH side of steering column	209-1
Diagnostic Connector (528 e)	LH side of engine	104-1
Diagnostic Connector (533 i)	Top front of engine	104-1
Ignition Switch	Upper part of steering column	
Low Beam Check Relay	Attached to power distribution box	102-1
Power Distribution Box	On LH front wheel well	102-1
Starter	Lower rear LH side of engine	
C200 (10 pin)	On LH side of steering column	203-2
C202 (13 pin)	On LH side of steering column	203-2
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C302 (accessory connector)	Under LH side of dash	212-1
G102 (Main Body Ground)	On fender well behind LH headlights	203-1

POWER MIRRORS

Mirror Control Switch	On driver's door	
Power Distribution Box	On LH front wheel well	102-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C500 (6 pin)	Behind LH front speaker	
C501 (4 pin)	Behind LH front speaker	
C502 (4 pin)	Behind RH front speaker	213-3
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

POWER WINDOWS

Power Distribution Box	On LH front wheel well	102-1
Power Window Circuit Brkr	Mounted in left under dash cover	213-6
Power Window Relay	Under LH side of dash	102-1
Safety Switch	On shift console	209-2
Window Console Switches	On shift console	209-2
Window Motors	In each door	
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C302 (accessory connector)	Under LH side of dash	212-1
C400 (13 pin)	Behind RH front speaker	
C401 (13 pin)	Behind RH front speaker	213-3
C402 (6 pin)	At LH rear door grommet	
C403 (6 pin)	At RH rear door grommet	
C500 (6 pin)	Behind Left front speaker	
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

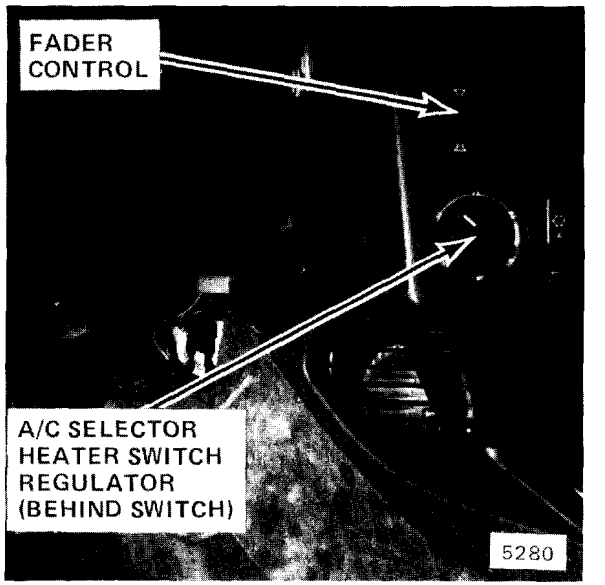


Figure 1 - Upper Console Below Dash

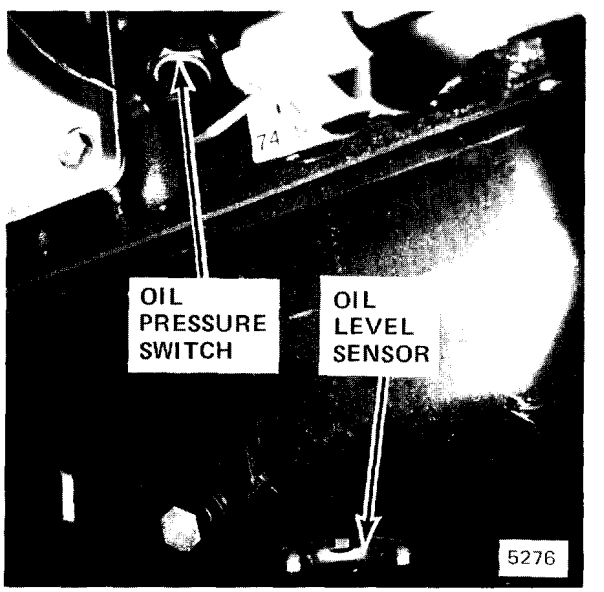


Figure 2 - RH Side Of Oil Pan

RADIO/POWER ANTENNA

Fader Control	In upper part of center console	210-1
Power Distribution Box	On LH front wheel well	102-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C215 (2 pin)	Behind radio	
C216 (2 pin)	Behind radio	
C217 (2 pin)	Behind radio	
C218 (2 pin)	Behind radio	
C302 (accessory connector)	Under LH side of dash	212-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

REAR DEFOGGER/HEATER DOOR LOCK

Lock Heater Control Unit	In LH front door	213-4
Lock Heater	In LH front door	
Power Distribution Box	On LH front wheel well	102-1
C206 (29 pin)	On connector bracket under LH side of dash	206-1
C302 (accessory connector)	Under LH side of dash	212-1
C500 (6 pin)	Behind LH front speaker	
C503 (8 pin)	In driver's door	202-2
C560 (2 pin)	In LH front door	
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	
G301 (Rear Interior Ground)	Under LH side of rear seat	208-1

SERVICE INTERVAL INDICATOR

Coolant Temp. Sender (528 e)	Front of engine, on thermostat housing	206-2
Coolant Temp. Sender (533 i)	Front of engine, on thermostat housing	201-2
Diagnostic Connector (528 e)	LH side of engine	104-1
Diagnostic Connector (533 i)	Top front of engine	104-1
Motronic Control Unit	Above glove box	204-1
Power Distribution Box	On LH front wheel well	102-1
C101 (17 pin) (528 e)	In power distribution box	205-1
C101 (17 pin) (533 i)	In power distribution box	215-2
C103 (6 pin)	RH side of dash near Motronic control unit	204-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

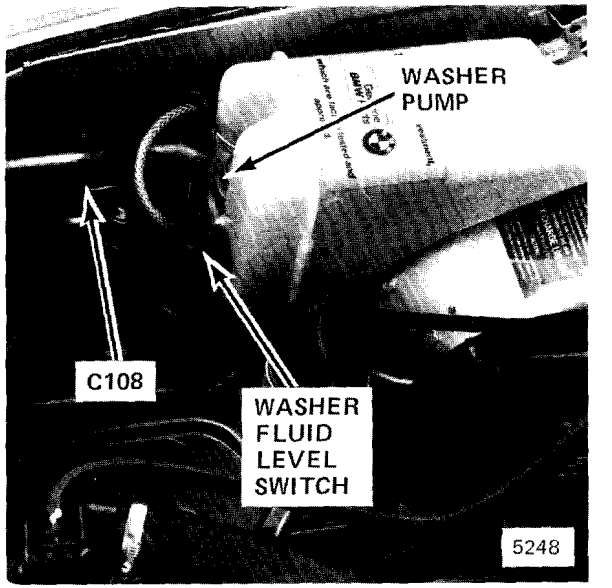


Figure 1 - Forward Of Washer Reservoir

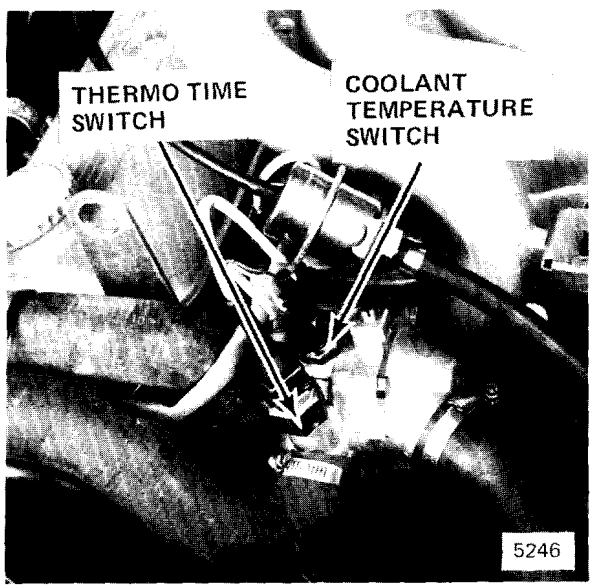


Figure 2 - Top Front Of 528e Engine

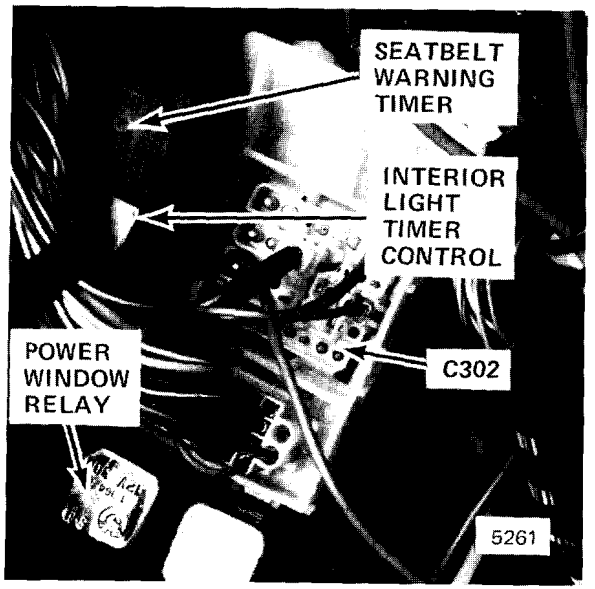


Figure 1 - Lower LH Side Of Dash

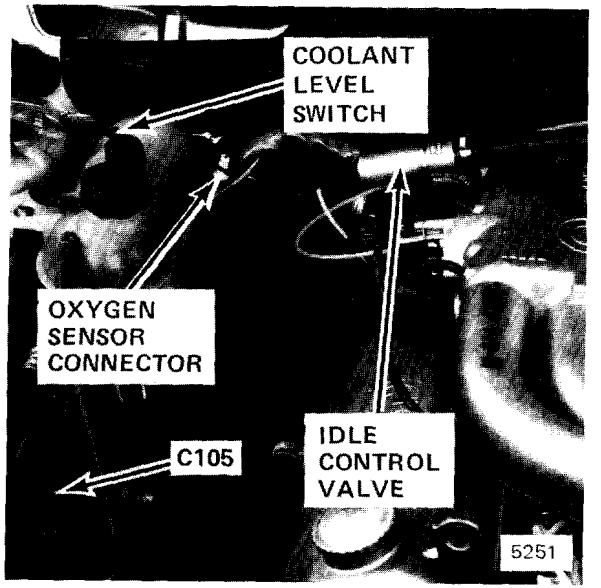


Figure 3 - Left Of 528e RH Front Wheel Well

Figure 5 - Below Throttle Of 528e Engine

Figure 2 - Top Front LH Side Of 528e Engine

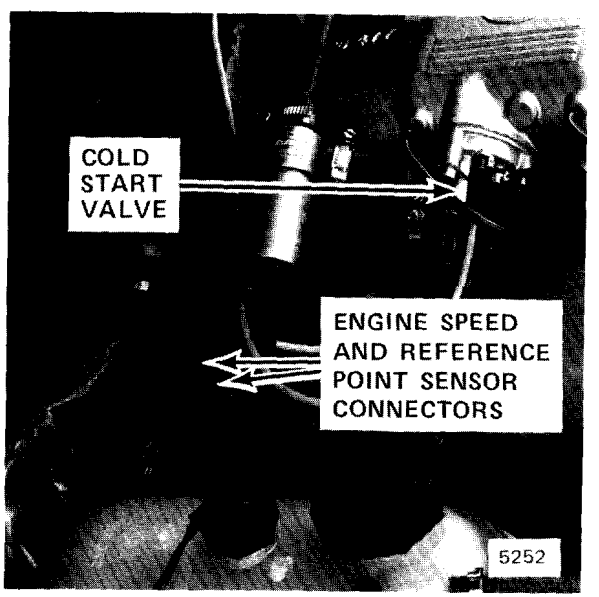


Figure 4 - RH Rear Side Of 528e Engine

Figure 6 - Left Of 533i RH Front Wheel Well

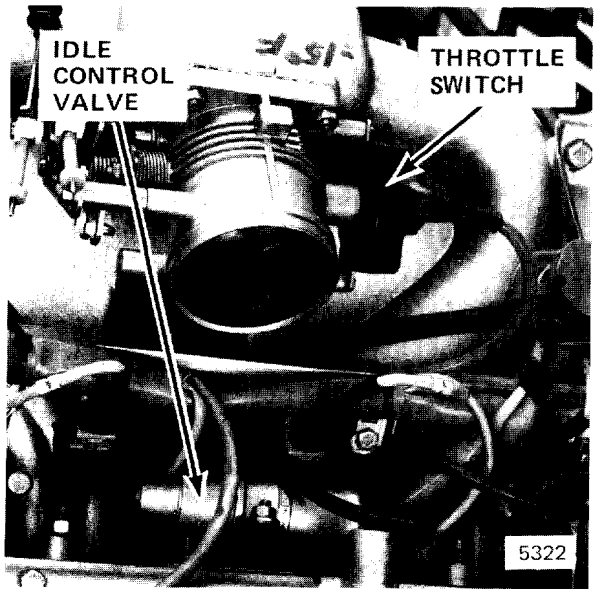


Figure 1 - Top Center Of 533i Engine

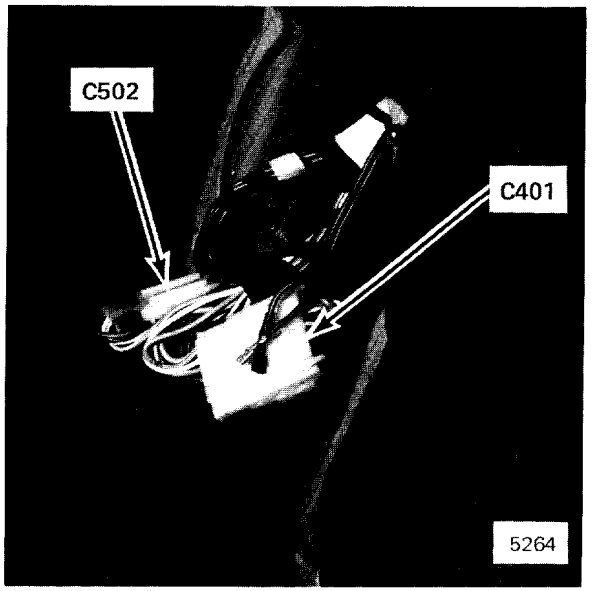


Figure 3 - Behind Right Front Speaker

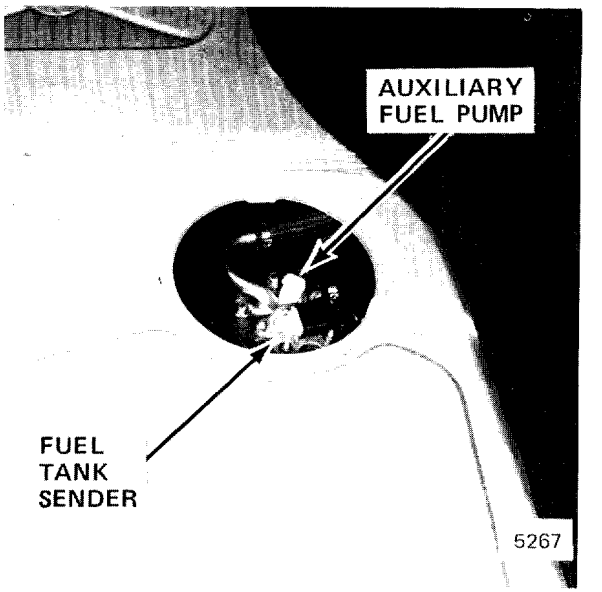


Figure 5 - Bottom RH Side Of Trunk

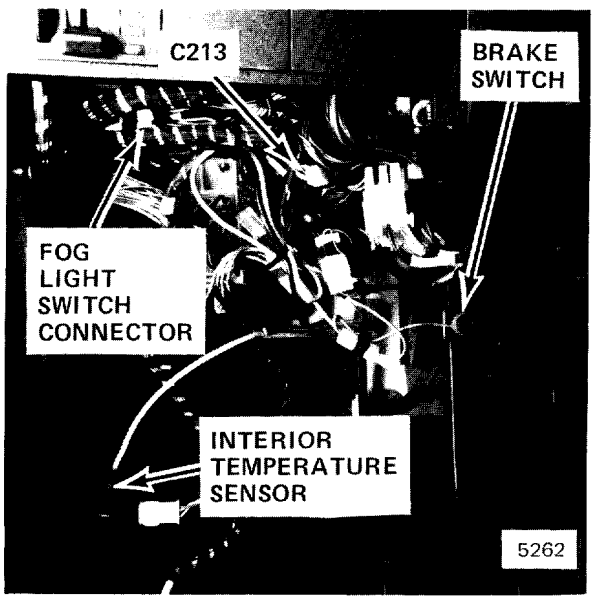


Figure 2 - Lower LH Side Of Dash

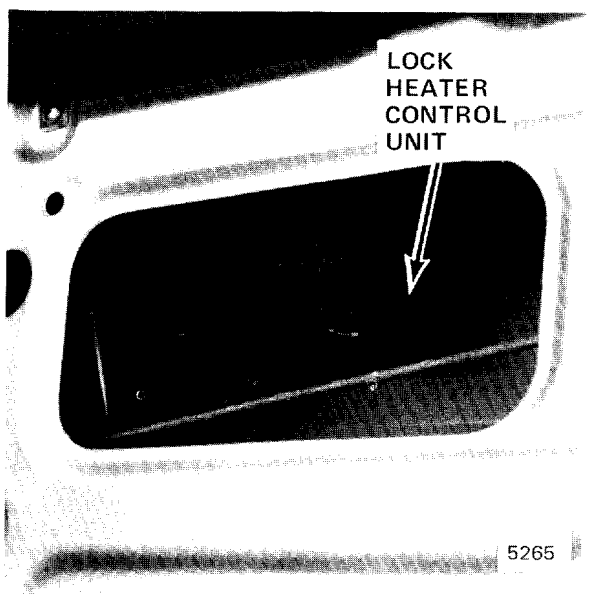


Figure 4 - Inside Driver's Door

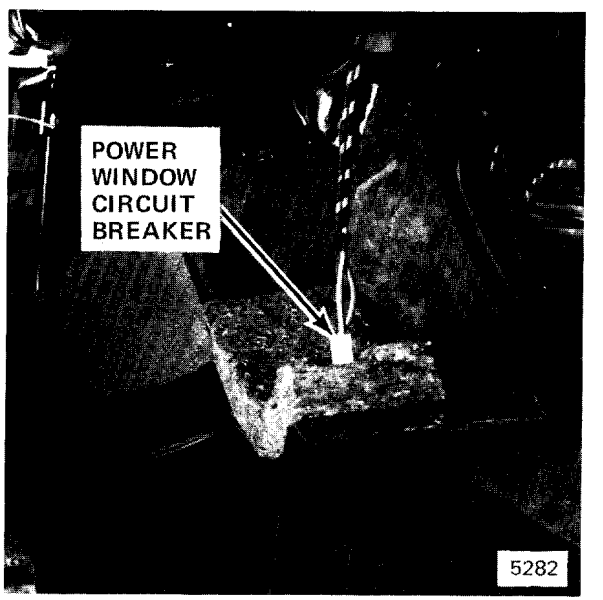


Figure 6 - Left Of Upper Console

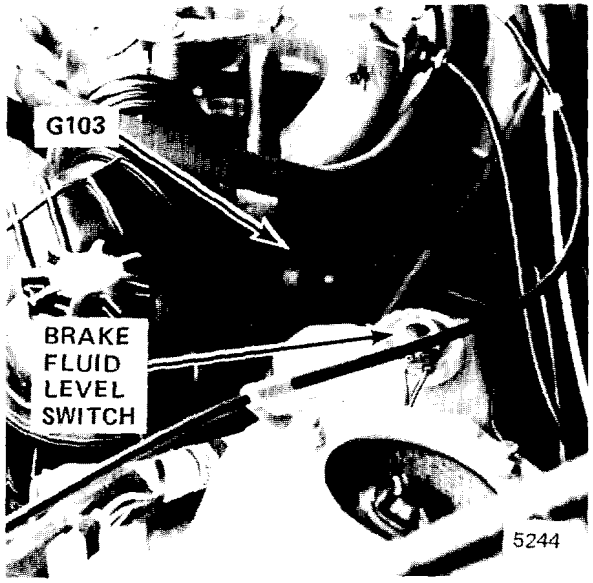


Figure 1 - LH Rear Of Side Of 528e Engine

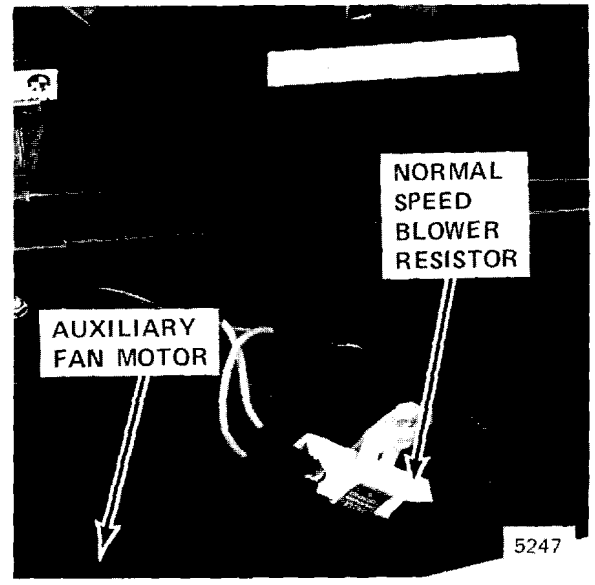


Figure 3 - Forward Of Radiator

Figure 5 - LH Side Of Upper Console

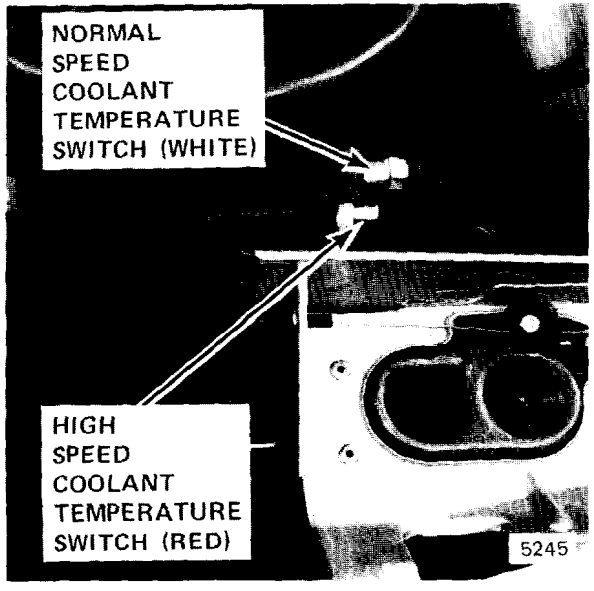


Figure 2 - LH Side Of Radiator

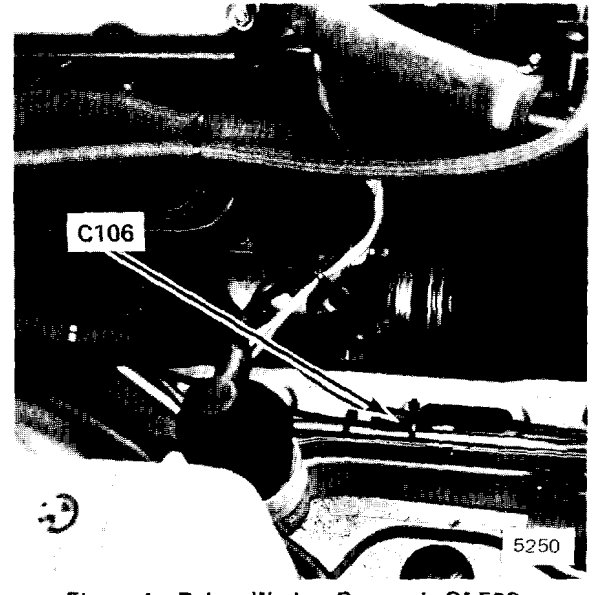


Figure 4 - Below Washer Reservoir Of 528e

Figure 6 - RH Side Of Upper Console

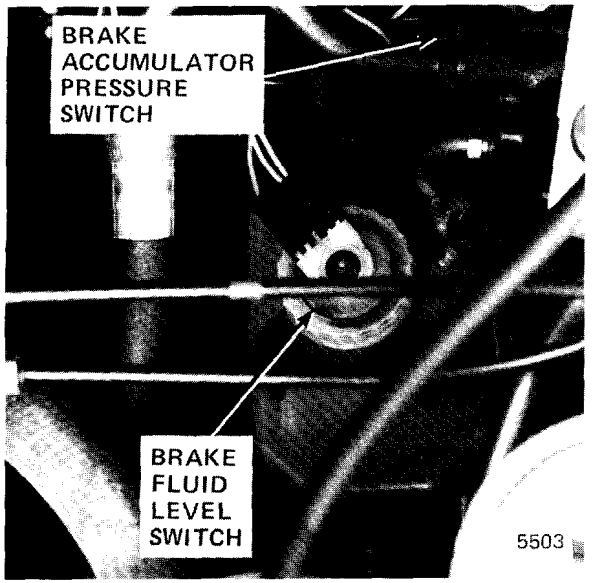


Figure 1 - LH Rear Side Of 533i Engine

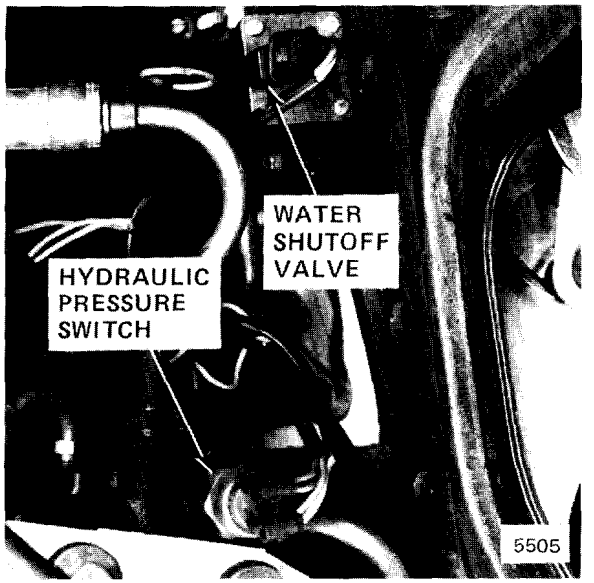


Figure 3 - Front Of LH Wheel Well

Figure 5 - Console, At Gear Shift Selector

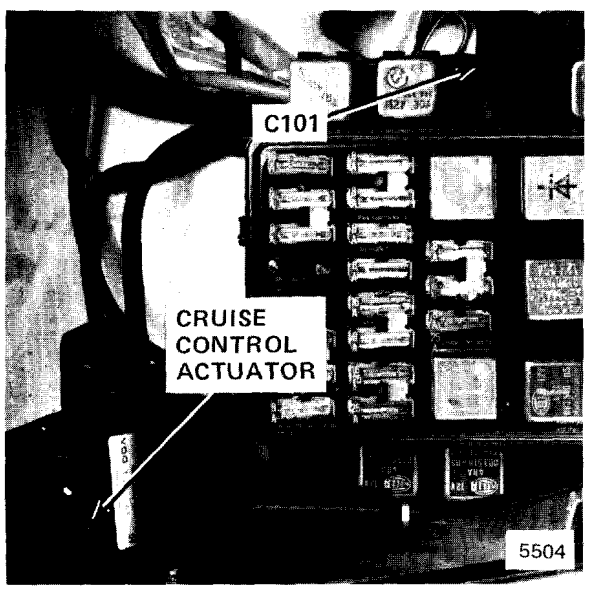


Figure 2 - LH Rear Side Of 533i Engine

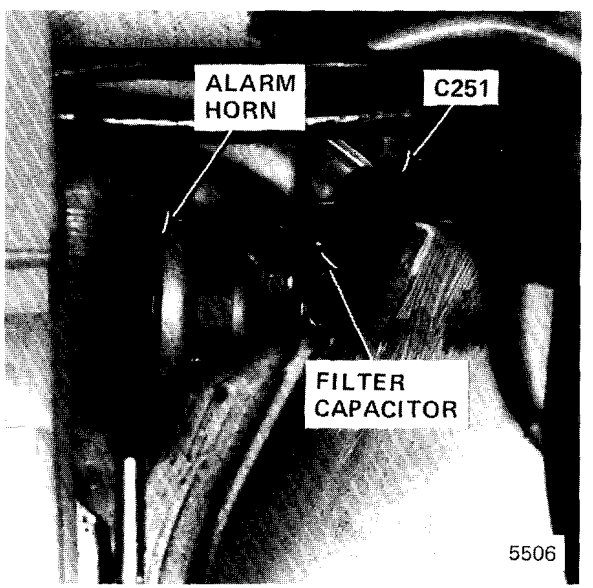


Figure 4 - Behind Battery

SPEEDOMETER/GAUGES/WARNING INDICATORS

Active Check Control Unit	Above rear view mirror	119-1
Brake Accumulator Pres. Switch	Right of left front shock tower	215-1
Brake Fluid Level Switch (528e)	LH rear of engine, on brake fluid reservoir	214-1
Brake Fluid Level Switch (533 i)	LH rear of engine, on brake fluid reservoir	215-1
Coolant Temp. Sender (528 e)	Front of engine, on thermostat housing	206-2
Coolant Temp. Sender (533 i)	Front of engine, on thermostat housing	201-2
Diagnostic Connector (528 e)	LH side of engine	104-1
Diagnostic Connector (533 i)	Top front of engine	104-1
Fuel Tank Sender	Under trunk, top RH side of fuel tank	213-5
Hydraulic Pressure Switch	Right of left front shock tower	215-3
Ignition Switch	Upper part of steering column	
Motronic Control Unit	Above glove box	204-1
Oil Pressure Switch	RH side of engine, below oil filter	210-2
Parking Brake Switch	In shift console at base of parking brake	
Power Distribution Box	On LH front wheel well	102-1
Speedometer Sender	In rear of differential	
C101 (17 pin) (528 e)	In power distribution box	205-1
C101 (17 pin) (533 i)	In power distribution box	215-2
C103 (6 pin)	RH side of dash near Motronic control unit	204-1
C200 (10 pin)	On LH side of steering column	203-2
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	
G301 (Rear Interior Ground)	Under LH side of rear seat	208-1

START

Auto. Trans. Range Switch	At base of shift lever	215-5
Cold Start Valve (528 e)	RH side of engine	212-4
Cold Start Valve (533 i)	Between intake ports 3 and 4	
Diagnostic Connector (528 e)	LH side of engine	104-1
Diagnostic Connector (533 i)	Top front of engine	104-1
Ignition Switch	Upper part of steering column	
Power Distribution Box	On LH front wheel well	102-1
Start Relay	On connector bracket under LH side of dash	206-1
Starter	Lower rear LH side of engine	
Thermo-Time Switch (533 i)	Front of engine, top of thermostat housing	201-2
Thermo-Time Switch (528 e)	Front of engine, top of thermostat housing	211-2
C101 (17 pin) (528 e)	In power distribution box	205-1
C101 (17 pin) (533 i)	In power distribution box	215-2
C200 (10 pin)	On LH side of steering column	203-2
C213 (1 pin)	Near start relay under LH side of dash	213-2
G102 (Main Body Ground)	On fender well behind LH headlights	203-1
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	

WIPER/WASHER

Power Distribution Box	On LH front wheel well	102-1
Washer Pump	Forward of RH front wheel well, in reservoir	211-1
Wiper Motor	Above brake master cylinder	
Wiper/Washer Switch	On RH side of steering column	209-1
C102 (7 pin)	In power distribution box	205-1
C201 (6 pin)	On LH side of steering column	203-2
G200 (Front Interior Ground)	Under LH side of dash, near brake bracket	
G201 (Steering Column Ground)	Upper part of steering column	207-2